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ABSTRACT

In two separate articles, this report compared indicators of performance-funding programs for 2-year and 4-year public colleges in eight states. It examined indicators accepted or proposed in Arkansas, Colorado, Florida, Kentucky, Minnesota, Missouri, South Carolina, and Tennessee. It was found that states had as many as 37 and as few as 9 indicators for 4-year schools, and that the indicator selections for both sectors exhibited a surprising lack of common choices. Both sectors had just five indicators picked by four or more states, and only three of these measures applied to both 2- and 4-year schools: retention/graduation rates, 2- to 4-year transfers, and licensure test scores. It was found that the external concerns of state policy makers rather than the internal concerns of the academic community dominated the choice of indicators, and that both sectors showed a shift from input to output and outcome indicators and a heavy reliance on process indicators. Appendixes provide categories of indicators and measures used or proposed for 2- and 4-year public colleges, sources for state performance indicators, and State University System of Florida outcome/output measures. (MDM)

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# Performance-Funding Indicators: Concerns, Values, and Models for Two- and Four-Year Colleges and Universities

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# Performance-Funding Indicators: Concerns, Values, and Models for Two- and Four-Year Colleges and Universities

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# Performance-Funding Indicators: What Do They Say About Concerns, Values, and Models for State Baccalaureate Institutions?*

*Joseph C. Burke*

Performance funding, once "unthinkable," is becoming "fashionable" in state capitols in the first half of the 1990s.[1] A survey in 1995 of State Higher Education Finance Officers found that nine states had adopted — and ten were considering — linking some funding for public colleges and universities to their achievements on priority goals or objectives.[2] Two surveys in 1996 suggest a growing interest in performance funding. The first found that 14 states used quality outcomes factors in budgeting for public higher education.[3] The second concluded that "Many States are either beginning to use or are considering performance funding, which is a natural outgrowth of the current public demand for the most effective use of tax dollars."[4] Interviews with the chairs of the higher education committees in state legislatures in 1995 revealed that 44 percent think their states are likely in the next few years to link funding to institutional performance.[5] The national organization of State Higher Education Executive Officers (SHEEO) has made performance funding and educational technology its priority topics for 1997. At first it seemed performance funding might become a trend, but developments in several states with newly adopted programs suggest that its momentum may have stalled. Arkansas has suspended Productivity Funding. Florida has postponed full implementation of its Performance Based Program Budgeting. And a new Governor in Kentucky seems dissatisfied with that state's performance-funding plan. Whether performance funding is a coming trend or a passing fad, it deserves further study.

Although the amounts allotted are currently small, performance funding represents a dramatic departure from traditional budgeting, which funds public higher education primarily for current costs, enrollment levels, and inflationary and salary trends. Some states have provided initiative funding to encourage performance in a few selected areas. The departure of performance funding is that the money comes for *achieved* rather than *promised* results on a broader range of specific objectives. Interest in performance funding reflects the attitudes, concerns, and values of state policy makers about the results achieved with the resources received by public colleges and universities. Whether a fashion or a trend, performance funding is emerging as one of the "hot issues" in state capitols that deserves closer examination. Although excellent studies exist for programs in particular states, such as Tennessee and Missouri,[6] no comparative study has been made among states.

Selection of performance indicators represents a critical choice in performance funding. If it is true that "what gets measured is what gets valued," surely what gets funded is even more prized, especially at a time when state support for public higher education is limited. The indicators picked

* This study is part of a national project examining performance funding supported by the Pew Charitable Trusts. It benefited from the able assistance of Andreea Serban, the research associate in the project and a doctoral candidate at the University at Albany.

provide clues to the concerns and values of state policy makers about public higher education and offer insights into their preferred models of excellence for state colleges and universities. This article examines the indicators accepted or proposed in eight states: Arkansas, Colorado, Florida, Kentucky, Minnesota, Missouri, South Carolina, and Tennessee. It can provide only a perspective at a point in time, since performance funding is new in nearly all of these states and the indicators continue to evolve. This study seeks answers to a series of questions. Did the states tend to choose from a core of indicators used in performance reporting? Did they select the same indicators? Did they favor input, process, output, or outcome measures? What did their choices suggest about their concerns, values, and models of excellence for their state colleges and universities? As is often the case with complex, critical issues, it is easier to pose these questions than to provide their answers.

This article examines only the indicators adopted or proposed for performance funding. It does not explore other essential elements in performance-funding programs, such as indicator weights, success standards, or funding levels. The purpose is to probe the intentions inherent in the indicators to see what they reveal. In policy studies, actions speak louder than words. What policy makers do in selecting performance indicators for state colleges and universities tell us more about their attitudes than what they say in speeches.

## Creating Comparative Core Indicators

Comparing indicators of performance-funding programs in eight states is challenging. Their indicators differ in number, content, and wording. Two states have many indicators for baccalaureate institutions. South Carolina has 37; Colorado, 28. The others have much shorter lists: Arkansas 14, Kentucky 13, Tennessee 10, and Minnesota and Missouri 9.[7] Florida had 40 indicators in the University System's initial proposal for Performance Based Program Budgeting, but this article uses 17, which represent a combination of those adopted in the Budget Act for 1996-97 and those recently accepted by the Governor.[8] Some programs link different objectives in a single indicator, whereas others list them separately. Variation in terminology also complicates comparisons. This study constructs a common core of indicators where two or more states share similar measures. Its list of core indicators combines objectives that are separate indicators in some states. For example, Retention and Graduation rates are joined, although some states make them separate items. Similarly, separate indicators — such as Credits on Graduation and Time-to-Degree — have been linked to denote a common concern with the cost of students taking too many courses and staying too long before graduation. In other cases, where a single indicator in a state program includes two or more distinct objectives, that state is listed under several core indicators. For example, some states include in a single indicator graduation rates along with a specific time for degree completion. In these instances, those states appear under both "Retention/Graduation Rates" and "Credits to Graduation and Time to Degree."

As a result of this practice, the number of listings for states on the table in Appendix 1 often differs from the actual number of indicators in their performance funding programs. Though comparability requires development of a collective core of indicators, this approach blurs the diverse details of the individual items adopted or proposed in each of the states. The actual indicators in each state provide special insights into intentions and goals and are well worth examining in detail. For example, the Arkansas indicators call for administrative cost reductions and increased program productivity but specifies that these objectives should not be achieved by sacrificing educational

quality. The grouping of indicators in this study, though capturing commonalties in state programs, loses this significant proviso. Readers are urged to review the indicators as they appear in the state plans.

This article deals only with baccalaureate institutions, since significant differences in the indicators selected for two-year institutions suggest the need for a separate study. The eight states took five different approaches to developing indicators for their community colleges. Arkansas, Colorado, and Kentucky, have the same indicators for both two- and four-year institutions, although Kentucky has mandated indicators for each of the sectors. Missouri and Tennessee have mostly common indicators, but add an alternate item for their two- and four-year campuses. Minnesota has separate programs for the University of Minnesota and its State College and University System, which includes the state's community colleges, though the two systems share some common indicators. Though it is not yet decided, it appears that South Carolina will apply most but not all of the mandated indicators to its two-year Technical Colleges. Only Florida has separate indicators for its two-and four-year institutions. A separate article can best deal with these variations from the performance-funding programs for baccalaureate institutions.

## The Indicator Content

The list of indicators for performance funding parallels those selected for performance reporting, but a close comparison also reveals significant differences. Peter Ewell in a study for the Educational Commission of the States (ECS) of performance reporting in ten states lists the most common indicators:

1. Enrollment/graduation rates by gender, ethnicity, and program;
2. Degree completion and time to degree;
3. Persistence/retention rates by grade, ethnicity, and program;
4. Remediation activities and indicators of their effectiveness;
5. Transfer rates to and from two- and four-year institutions;
6. Pass rates on professional exams;
7. Job placement data on graduates and graduates' satisfaction with their jobs;
8. Faculty workload and productivity in the form of student/faculty ratios and instructional contact hours.

Sandra Ruppert,[10] who coordinated the ECS project, offers a longer but similar list of core indicators:

1. Admission Standards;
2. Remediation Activities and Effectiveness;
3. Enrollment, retention, and graduation data by gender, ethnicity, and program;
4. Total Student credit hours by institution and discipline;
5. Transfer Rates to and from two- and four-year colleges;

6. Total degrees awarded by institution and program and time to degree;
7. Pass rates on professional licensure exams;
8. Placement data on graduates;
9. Results of satisfaction studies of alumni, students, parents, and employers;
10. Faculty workload and productivity data;
11. Number and percentage of accredited and eligible programs; and
12. External or sponsored research funds.

The similarities in indicators used for performance reporting and performance funding are interesting, but the differences are intriguing (see the table in Appendix 1). Both focus overwhelmingly on undergraduate education. The most common indicators on both lists include:

- Retention/Graduation Rates,
- Faculty Teaching Load,
- Job Placement,
- Licensure Test Scores,
- Satisfaction Surveys,
- Time-to-Degree, and
- Two-Year College Transfers.

One significant shift in performance funding is the move from indicators on ethnicity and gender, which were so prevalent in the performance reports. Only two states include Minority Graduates and Minority Access in their performance-funding programs; and just one chooses Minority Retention Rate and Minority Graduation Rate. Only a single state has an indicator concerning gender. This shift represents a major departure from the indicators used for Performance Reporting. Yet one surprising omission from the ECS list, Faculty/Staff Diversity, was selected by three states for performance-funding programs.

The stress on access that appears in the indicators for performance reporting also diminishes in those selected for performance funding. Only Colorado — which anticipated large increases in student demand — and South Carolina — which had no such pressures — insert this item. Florida, with projected enrollment demands second only to California, does not include a Student Access indicator, though the initial University proposal had an access indicator.[11] The performance-funding indicators place much less emphasis on total enrollments than did those used in performance reporting. They also show less interest in production statistics, such as the number of degrees granted in total or by discipline areas. One surprise in the indicators for performance funding is the scant attention to the current criticism of admission standards and remediation programs. A notable absence is the lack of a single indicator on tuition and fees, despite the growing concern about affordability among state policy makers.

If the performance funding indicators repeat many of the items in the performance reports, they also introduced new policy issues. Indicators on the use of technology and distance learning,

administrative versus academic costs, and program productivity and duplication, which voice more current concerns of state policy makers. State needs, especially workforce training and economic development, receive added attention in these funding programs. The performance-funding indicators show decided preference for efficiency and productivity measures. Gone are the items on state funding levels or state support per student found in the performance reports. Attention moves to how public colleges and universities allocated and utilized existing resources, rather than to how much they received from taxpayer support.

It is not surprising that the performance-funding programs share a common list of indicators with performance-reporting systems. What is surprising is the lack of commonality among the states in their choice of indicators. A study of performance reports in 1994 found widespread borrowing of indicators among the states — a version of the "legislation by fax" discovered in the assessment mandates.12 State selection of performance-funding indicators reveals more contrasts than copying. Only Retention/Graduation Rates is selected by all eight states. (The same had occurred in performance reporting according to the ECS study.13) From that high point, the common choice of funding indicators falls to only four out of the eight states. This number selected just four common indicators:

- Faculty Teaching Load,
- Licensure Test Scores,
- Two-to Four-Year Transfers, and
- Use of Technology/Telecommunications/Distance Learning.

It seems significant that half or more of these states selected only five common indicators. Three states chose 11 additional indicators; and two shared another 14. Individual states used 27 unique indicators, nearly half of the total number. The selections certainly suggest no widespread agreement on indicators and no wholesale borrowing among the states.

Richard C. Richardson claims in the ECS Study that "Colorado, Florida, Kentucky, and South Carolina appear to have been influenced by Tennessee in their adoption of indicators" for performance reporting.[14] It would seem likely that Tennessee, with performance funding in place since 1979, would have influenced programs in other states, which only emerged in the last few years. Moreover, a number of states used consultants who had experience with the Tennessee program. Although Tennessee's example probably influenced the general approach to performance funding in the study states, it apparently had little impact on the choice of indicators. Only Missouri shares a significant number of indicators with Tennessee. Of Missouri's nine indicators on the Appendix 1 table, four are common with Tennessee. In addition to Graduation and Retention Rates selected by all states, they include: Institutional Choice; Test Scores, General Education, and Majors; and Graduate Education. Arkansas shares only two indicators with Tennessee — other than graduation and retention rates — Satisfaction Surveys and Test Scores, General Education, and Majors. The other five states have only one common indicator with Tennessee, beyond Retention/Graduation Rates. Tennessee probably influenced the choice of indicators in nearby Missouri but clearly not in the other states.

Proximity cannot explain the sharing of indicators between Colorado and South Carolina, with nine common items. Nor does it provide a reason that Minnesota shares no less than six of its nine indicators with South Carolina and three with Colorado. One possible explanation — which

will be explored later — is that all three have state-mandated programs, with many, if not all indicators, prescribed in legislation. The existence or absence of state mandates and prescribed measures apparently had much more influence on the choice of indicators in other states than the example of Tennessee.

Critics have charged that the indicators used for assessment programs and performance reporting owe more to the availability of data and ease of measurement than to their importance as policy concerns.[15] Though these factors may have influenced the inclusion of some of the indicators in performance-funding programs, a number of items appear that required substantial investment and effort to implement, such as satisfaction surveys, tests for general education and majors, job placement, use of technology, and institutional cooperation. The heavy use of process indicators, where data were not traditionally collected nor easily assessed, also counters this contention. Moreover, the limited number of indicators used in many states forced difficult decisions. Many indicators were considered, but comparatively few were chosen in most states. Some of the obvious indicators for which data were readily available — such as admission and enrollment information — were omitted. Given the avid concern for funding in higher education, surely the choice of indicators for special funding reflected important objectives rather than availability of information or ease of measurement.

## External Accountability or Internal Improvement?

An important policy question is whether the selected indicators express the internal concerns of the academic community or the external concerns of state policy makers. Richardson, writing about performance reporting, disputes the common assumption of an inevitable conflict between the purposes of external accountability and institutional improvement, though he concedes there are inherent tensions between "a professional emphasis on institutional improvement and a state policy emphasis on institutional accountability. . . ."[16] He makes a convincing case, for surely institutional improvement should represent a major goal of external accountability. Yet few students of the subject would deny that the specific indicators used for performance reporting or performance funding tend to reflect either the external concerns of states and society or the internal concerns of the academic community. Of course, balance between internal and external concerns comes not necessarily in the individual indicators but in their appropriate combination. All of the states — except Missouri and Tennessee which avowedly stressed institutional improvement — claim their performance-funding programs seek both external accountability and institutional improvement. Still the indicators chosen by most of the eight states reflect a priority of one purpose over the other.

An analysis of whether indicators stem primarily from the external or internal concerns reveals some interesting differences and an intriguing deviation among three categories of performance-funding programs: Mandated/Prescribed, Mandated/Not Prescribed, and Not Mandated. Legislation mandated performance funding in Colorado, Florida, Kentucky, Minnesota, and South Carolina. These states with mandated programs divide into two categories: those that not only mandated the programs but also prescribed all or many of the indicators in statute; and those that mandated performance funding but left the development of the indicators to coordinating boards and campus representatives. Colorado, Minnesota, and South Carolina fall into the first category. The second includes Kentucky and Florida. Kentucky had mandate legislation, but its coordinating agency in consultation with campus representatives was allowed the freedom to develop the

proposed indicators. Florida is complicated, because it has two performance-funding statutes, Performance Based Program Budgeting and Performance Incentive Funding. The first allowed the University System to propose the indicators; and the second does not prescribe them in statute and permitted University input, though they are listed in the budget bills.

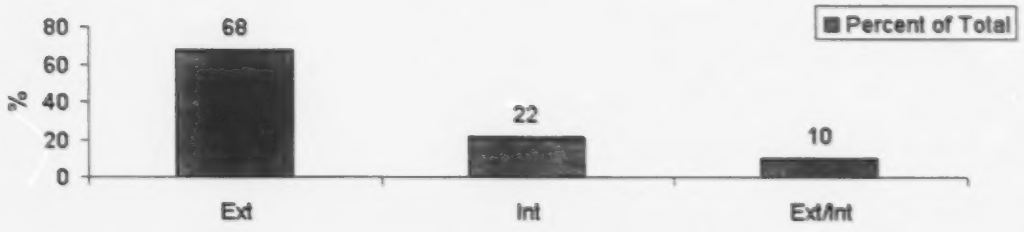
In the Not Mandated Category of Arkansas, Missouri, and Tennessee, coordinating boards on their own initiated and implemented programs without legislative mandate. But Arkansas — unlike Missouri and Tennessee with no enacting laws — does have a separate statute establishing an "Institutional Productivity Fund" for performance funding. This legislation serves as a fiscal vehicle for getting performance moneys to the campuses, but it also represents an endorsement of performance funding by the Governor and Legislature. On the other hand, in Arkansas, as in Tennessee and Missouri, the coordinating board and agency staff freely developed performance funding and fully determined its program contents, including the performance indicators.

It would seem reasonable to anticipate that the indicators arising from external and internal concerns might vary according to these three categories. One would expect that the states, where legislation mandated the program and prescribed the indicators, would heavily favor measures reflecting external concerns. In the group with mandated programs but with the freedom to propose indicators in consultation with campus representatives, one would anticipate an emphasis on external concerns to reflect the mandate but some recognition of internal concerns because of the consultative process. The group without mandate would naturally be expected to show much more interest in internal concerns, though not neglecting external concern, since funding requires support from governors and legislatures. The hypothesis, at least on mandated and nonmandated, holds for nearly all of the states, with one notable exception.

As expected, external concerns clearly dominate in the mandated states, though they are not neglected in the nonmandated, since funding programs require budget approval by governors and legislators. Looking at the states collectively, 68 percent of the indicators represent external concerns, over three times the 22 percent that show internal concerns. Ten percent indicate both concerns. The five indicators supported by half or more of the states all suggest external concerns. The 11 indicators listed by three states show some shift, with eight external, three internal, and one mixed. The 14 indicators shared by two states exhibit more balance by including eight external, five internal, and one mixed. The 27 indicators used by only one state have 14 external, 6 internal, and 7 mixed. Generally, the percent of external-oriented indicators rose or fell in relation to the number of states that used them.

**Chart 1**

**Performance Funding Indicators Reflecting External/Internal Concerns**



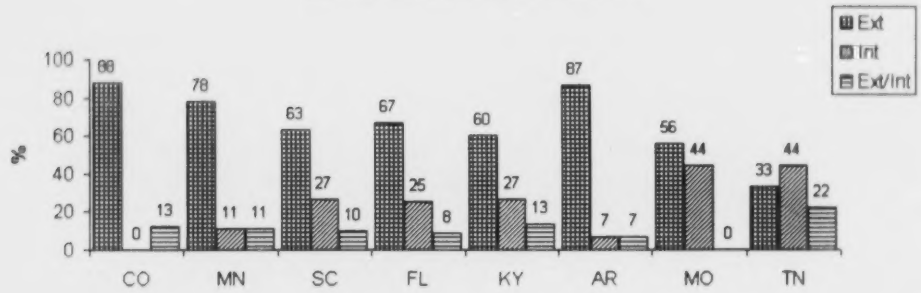
As with all overall pictures, this description conceals as well as reveals. Adding the details state by state, and especially by the categories of mandate and prescription, provides a different perspective. The Mandated/Prescribed states of Colorado, Minnesota, and South Carolina, as expected, clearly favor external over internal concerns. However, South Carolina's is a bit of a surprise, given the detailed prescription of its performance-funding legislation. It does have a lower percent of indicators suggesting external and a higher percent internal concerns than the other Mandated/Prescribed states. As anticipated, the Mandated/Not Prescribed states of Florida and Kentucky stress external concerns, without omitting internal interests. The state mandate combined with the participatory process undoubtedly explains the accent on external without neglecting internal concerns. In the Not Mandated category, Missouri and Tennessee follow the predicted pattern by achieving a better balance between the two concerns. Both states, in their choice of indicators, clearly tried to adhere to their announced purpose of emphasizing institutional improvement.

Arkansas not only breaks, it *shatters*, the prediction. Although free of mandate and prescription, it has ten external-oriented indicators and only one internal and one combined. With 87 percent of its indicators reflecting external concerns and only seven percent internal, Arkansas has more in common with the Mandated/Prescribed states than the Not Mandated states. This result is astonishing, since the indicators were developed by an Institutional Productivity Committee, composed mostly of chancellors and presidents with only three representatives from the State Department of Education. However, this Committee initially rejected two of the indicators expressing external concerns — Faculty/Staff Diversity and Faculty Teaching Load — but the State Board of Higher Education, composed of lay members, insisted on including them. If those two additional indicators reflecting external concerns had not been included, Arkansas would have had 71 percent external, 21 percent internal, and 7 percent both concerns. These percentages would have come closer to expectations for a Mandated/Not Prescribed state, but they still would have been far different from Not/Mandated states of Missouri with 55 percent external and 44 percent internal and Tennessee with 33 percent external and 44 percent internal. The Arkansas experience illustrates an important reality in choosing indicators. Although campus representatives had extensive input in proposing the indicators in states where they were not prescribed, the coordinating boards with heavy representation from business and other lay groups retained the right of approval. In addition, the indicators had to satisfy governors and legislatures to receive funding. In the Mandated/Not Prescribed states of Florida and Kentucky, governors and Legislatures had the final authority to reject or accept the proposed indicators.

State-by-state analysis then reveals that external concerns of accountability tend to dominate in Mandated/Prescribed states of Colorado, Minnesota, and South Carolina, although the latter includes many more indicators reflecting internal concerns than the other two. Tennessee and Missouri, without mandates, lack many of the familiar indicators that respond to the external concerns, such as Time-to-Degree, Job Placement, Faculty Teaching Load, Non-Instructional Staff/Costs, and Program Duplication, while at least three and often four of the six mandated states include them. On the other hand, Arkansas, without a mandate, included every one of these accountability and productivity measures that are missing from the Missouri and Tennessee programs. The Mandated/Not Prescribed states of Florida and Kentucky emphasize external concerns without neglecting internal interests. In summary, the emphases of the state indicators on external or internal concerns, with the notable exception of Arkansas, tend to follow whether performance funding was mandated and to a lesser extent whether the indicators were prescribed.

Chart 2

**Performance Funding Indicators Reflecting External/Internal Concerns**




## Indicator Types

The type of indicators selected for performance funding suggests some shifting interests of state policy makers from those used in performance reporting. The indicators divide into four types — **INPUT, PROCESS, OUTPUT,** and **OUTCOME**. This study uses multiple designations for indicators that fit more than one classification. The designations depend on interpretation and judgment. Indicator types are easier to define in theory than to designate in practice. The definitions used follow the literature and state practices. An **Input** is defined as the human, financial, and physical *resources received* to support programs, activities, and services. Examples are Staffing and Funding, New Student Preparation, and Faculty Credentials. A **Process** is the *means* or *method* used to deliver programs, activities, and services. This type includes Assessment of Student Learning, Use of Technology, and Workforce Training and Development. An **Output** involves the *quantity* of products actually produced. The Number of Graduates, Sponsored Research Funds, Retention and Graduation Rates are examples. An **Outcome** is the *quality* of the benefit or impact of programs, activities, and services on students, states, and society. It includes Test Scores, Job Placement, and Satisfaction Surveys.

Designating some indicators by type is especially difficult. The designations used follow the intent in the state programs, where this is clear. Florida eases the task, since the University System's proposal for Performance Based Budgeting labeled its indicators as inputs, processes, outputs, and outcomes. Richardson designates by type a number of the common indicators in the ECS study.[17] Though most of the assignments in this article agree with Richardson, some discussion of the differences can clarify the problem. Richardson calls Student Learning Assessment an outcome, because he sees this item from the point of view of results. But here it is designated a process, because the states with this indicator used the percent of students assessed rather than the level of their performance. Richardson also characterizes Instructional Cost, Space Utilization, and Class Size as inputs, whereas this study considers them process indicators. The rationale for this decision is that total funding, total facilities, and total number of faculty do represent inputs, but it is the means or method of utilizing these resources by colleges and universities that results in Instructional Cost, Space Utilization, and Class Size. Florida's Performance Based Program Budgeting proposal also assigns Class Size as a process. This article calls Faculty Teaching Load a process, because it is viewed as a means of allocating faculty time and effort, but Richardson calls it an output, because he sees it as a product or result. Such differences are inevitable in judgment

calls that depend on differing perspectives. Fortunately, the agreements are many; the disagreements, few.

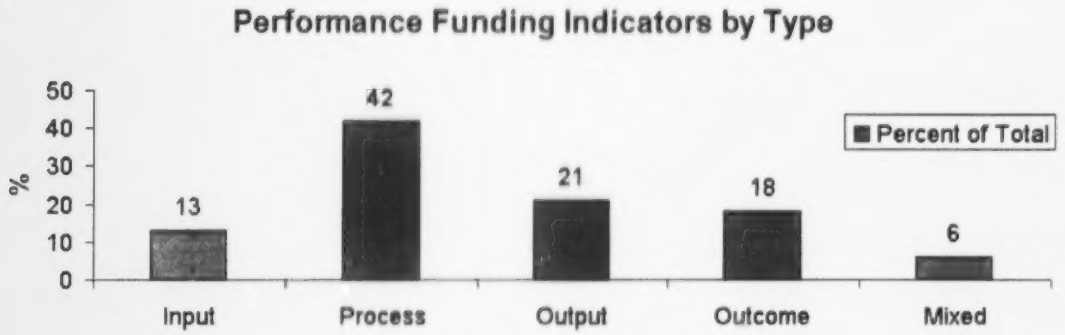
Richardson, in his analysis of performance reporting, notes a growing interest of state policy makers in output and outcome measures and a disinterest in input measures.[18] This trend accelerated in performance-funding programs. The reaction is hardly surprising at a time when state funding for public colleges and universities is constrained, since many of the input measures in higher education involve state support. Inputs also include total enrollments at a time when many state policy makers perceived that baccalaureate campuses were accepting too many unqualified students in order to increase their funding under traditional budgeting formulas. With performance funding, the policy emphasis seems to have shifted somewhat from admitting more students to achieving more productivity. As a result, the indicators for performance funding show that the trend from inputs to outputs and outcomes has quickened. They also suggest a new interest in process measures, which possibly flowed from the "quality movement"[19] with its accent on improving processes and responding to customers. A few process indicators emerge from the "good practices"[20] movement in undergraduate education, though these were scattered and usually appeared in the programs of individual states.

An examination of all 58 of the indicators on Appendix 1 shows the shift from inputs to output and — to a lesser — extent to outcomes. The indicators listed divide into 13 percent input, 20 percent output, 17 percent outcome, and fully 43 percent process. The remaining indicators represent combinations of these types. The percent of outcomes indicators seems impressive, given the difficulty of assessing the quality of benefits and impacts as opposed to counting resources and products. Again, the large number of process indicators probably reflects in part the popularity of the quality movement, with its emphasis on improving processes in organizational operations to serve the organization's customers, which in public higher education were viewed primarily as the students and the states.

Looking at the most popular indicators shows a somewhat different picture. Of the five indicators chosen by four or more states, two are process, and one each for the other three types. In the indicators picked by three states: four are process, a surprising four are outcome, and only one each for outputs, inputs, and one combination. Process indicators do dominate those selected by two states — 8 of 15, with only two input, two combined, and one output and one outcome. Of the 27 items used only by one state, 13 were process; 8, output; 4, input; and 2, outcome.

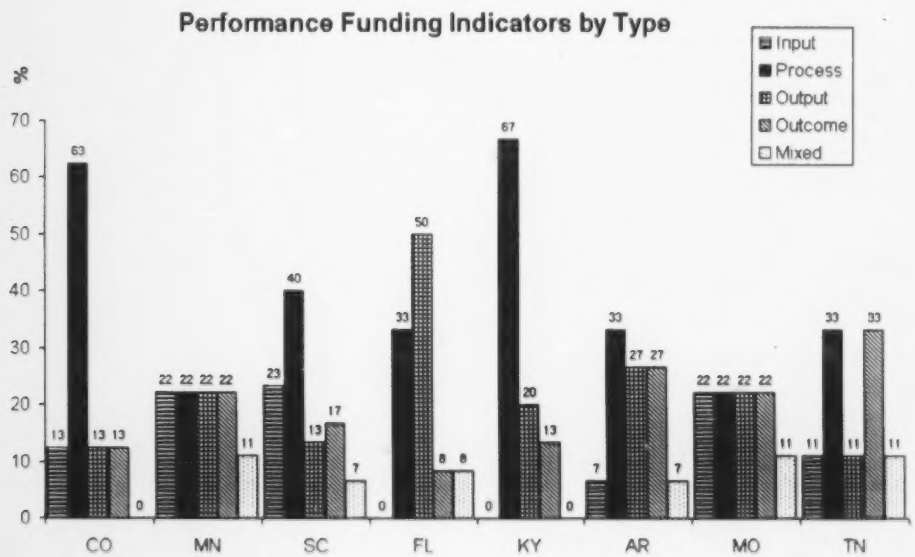
Richardson claims there would have been even fewer input measures in the performance reports, if colleges and universities leaders had not insisted on including the levels of state support.[21] Input indicators of state support are missing from the measures chosen for performance funding by two or more states; and only one appears in those selected by a single state — Faculty Compensation in South Carolina. It is understandable that states with constrained resources would refuse to give additional funding based on the level of their current support.

Chart 3



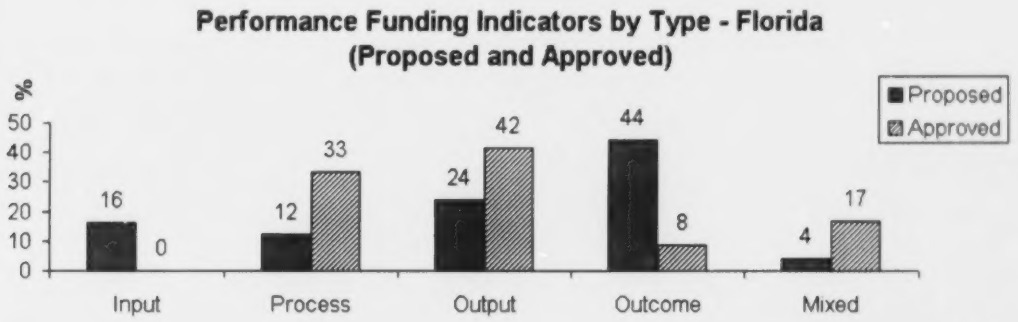

Two states have a very high percent of process indicators. Kentucky devotes 67 percent to process; Colorado, 63 percent. The large number of process indicators in the Kentucky program flows from their intended use as initial and temporary measures. Kentucky plans to turn many of these process indicators into output or outcome measures by the Year 2000. Florida has a high percentage of Output indicators (42%), while Arkansas accents evenly both outcomes and outputs, which combined constitute 54 percent of its indicators. Tennessee stresses equally both process and outcomes. No state emphasizes inputs; and Florida and Kentucky have none. Minnesota and Missouri spread their indicators fairly evenly among all four types. In general, the analysis by type of indicators reveals a move from inputs toward a heavy reliance on process measures. The categories of mandate and prescription appear to have little or no influence on the choice of indicator types.

Chart 4



Florida's selection of indicator types deserves special comment. The original proposal submitted by the University System had a much higher percent of outcome indicators, because of the heavy emphasis on outcomes and long-term impact on students and the state in the Performance Based Program Budget legislation. The Governor's Office never approved the recommended indicators because of a dispute with the lower house of the Legislature, which preferred Performance Incentive Funding. This program stressed less sophisticated output measures, where results were easier to access and to link to funding. The lack of approval of the University's proposal and the passage of Performance Incentive Funding changed dramatically the use of outcome indicators and also affected the adoption of input and process measures. Outcome indicators fell from 44 percent in the University proposal to 8 percent in the combination of the two programs used in this article. Input indicators also fell from 16 to 0 percent; and process from 33 to 12 percent. The Florida fight over long-term outcome versus shorter-term output indicators is a classic case of a philosophical and principled approach to performance budgeting versus the practical and political requirements of state budgeting. Though outcome indicators track more significant impacts, they take several years to assess. Output measures — with clearer results, more quickly obtained — fit better with annual or biennial budgeting, but fail to evaluate qualitative impacts. Florida may be edging toward a compromise that might maximize the advantages and minimize the disadvantages of using both outcomes and outputs in budgeting by using Performance Incentive Funding for annual budgets and Performance Based Program Budgeting for periodic budget adjustments.

**Chart 5**




## Policy Values

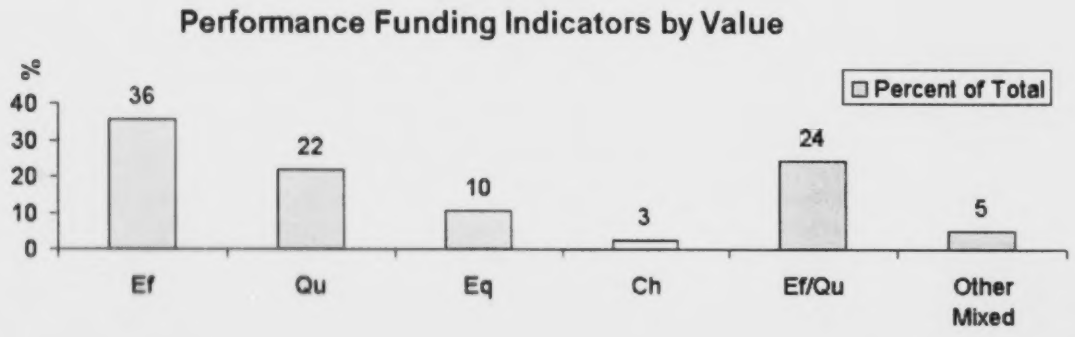
Governor Roy Romer of Colorado, as the Chair of ECS, declared that the states "need to be clear about what we value in higher education so we can act on those values."[22] Richardson agrees. "Higher education policies," he says,"reflect the core social values of choice, equity, efficiency, and quality."[23] Though the authority he cites is a book by Catherine Marshall and Associates devoted to elementary and secondary education, the basic values apply as well to higher education.[24] If, as Richardson and others say, "The rule is always, 'What is valued gets measured, and what is measured gets valued,'"[25] it seems reasonable to assume that what gets funded is an even better indicator of

what is valued. Surely, the performance-funding indicators should suggest what objectives states value most for their public colleges and universities.

The following definitions reflect both Richardson and Marshall's thinking. **Choice** is defined as the ability to select from a range of options. An obvious example is the indicator in Kentucky, Missouri, and Tennessee that allows campuses to choose a single indicator based on their individual preferences, which is described in Appendix 1 as "Campus Choice." **Efficiency** is the calculation of the resources used in relation to the results achieved — or a cost/benefit analysis. It includes indicators such as Graduation/Retention Rates and Time to Degree. **Equity** represents the response to the disparities and diversity in human needs among different groups. In the case of higher education, equity often relates to who attends and is employed, as expressed in indicators on Student and Minority Access and Faculty/Staff Diversity. **Quality** is achieving or exceeding high standards of performance. Of course, quality is the most elusive of all the values, especially in higher education. It can be real or perceived. It could be inputs (New Student Preparation), or process (Assessment Student Learning), or outcome (Licensure Test Scores of graduates). It is traditionally not an output, which suggests quantity, though it could be linked with efficiency in an indicator such as Sponsored Research. Once again, it is easier to define the four values than to assign them to the individual indicators.

The choices of indicators in the eight states reveal that 36 percent reflect the value of efficiency, 22 percent quality, 24 percent a combination of the two, and only 10 percent equity and 3 percent choice. Again, the low percent of equity indicators represents a dramatic departure from those used in performance reports. The above percentages suggest that collectively state programs stress both efficiency and quality. Three of the five indicators selected by half or more of the states reflect the value of efficiency; and not one has quality as a primary value, though it seems significant that two represent combinations of both quality and efficiency. In the 12 indicators adopted by three states, five indicate efficiency; three quality; one equity; one choice; and two combinations of efficiency and quality. The combination of efficiency and quality predominate in the 14 indicators chosen by only two states with seven. Quality has three and efficiency only one. Equity received a surprising three. Among the 27 indicators used by a single state, ten suggest quality, eight efficiency, five a combination of the two, and three equity. Although the indicators collectively do not slight quality, efficiency seems the preferred value. The 23 percent that combined the values of efficiency and quality does suggest that policy makers are beginning to recognize that these two values need not conflict. This recognition could represent a promising trend for the future.

**Chart 6**

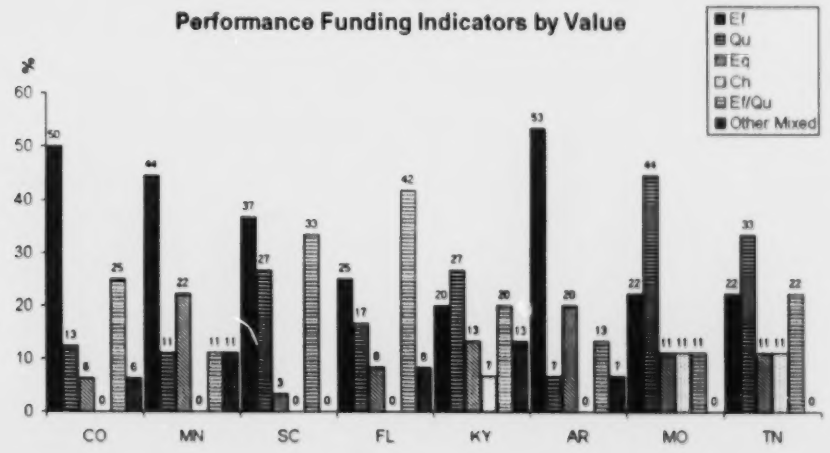


Once more analysis by states reveals significant differences. Arkansas with eight efficiency and only two quality; Colorado with seven efficiency and only three quality; and Minnesota with four efficiency and one quality, place much more emphasis on efficiency than quality. On the other hand, Tennessee with four quality and only one efficiency and Missouri with four quality and only two efficiency clearly favor quality. South Carolina gives almost equal weight to efficiency (9) and quality (10), and nine items that indicate both values. Again, South Carolina's balance between quality and efficiency comes as a surprise, since a Joint Legislative Committee with no representatives from higher education professionals developed these indicators. Kentucky shows a balance, with three efficiency, four quality, and three combined. Florida adopted three indicators for efficiency; two for quality and one for equity. But it had no less than six of its 12 indicators (50%) that combined the values of efficiency and quality, though one also includes equity as well.

These designations do not neatly fit the expected pattern of whether performance funding was mandated and prescribed by legislation. The pattern does fit Missouri and Tennessee. These states without a mandate or prescription emphasize quality over efficiency. It is also consistent with the selection of efficiency over quality by the mandated/prescribed states of Colorado and Minnesota, but not South Carolina. The balance in South Carolina between quality and efficiency is especially interesting, since the indicators were prescribed in legislation, rather than developed by a coordinating board and staff in consultation with campus representatives. The Mandated/Not Prescribed states of Florida and Kentucky show, as expected, some balance between efficiency and quality. Certainly, Arkansas, with its strong preference for efficiency, does not fit the conventional prediction for a state without legislative mandate or prescribed indicators, especially one that relied heavily on presidents and chancellors in the consultative process.

The designations of indicators do not support the common contention that state policy makers have abandoned interest in quality in their demand for efficiency. Although 36 percent of the indicators reflect efficiency, 22 percent signify quality, and no less than 24 percent combine both values. These results indicate the growing importance of efficiency, a continuing interest in quality, and a rising attraction for indicators that embody both values. The selection of indicators do suggest that state policy makers have moved away from some of the narrow notions of institutional quality often championed in academic circles, which depend mostly on inputs of resources and reputation rather than results that benefit students and society.

**Chart 7**



Criticism of performance indicators — for reporting and even more for funding — inevitably centers on their inability to capture fully the essential but elusive character of quality in higher education. The critics are undoubtedly correct that no limited set of indicators can capture completely the character of quality in higher education.[26] The assessment movement concentrating on undergraduate education evaluated quality by analyzing what graduates knew and were able to do. One of the five indicators selected by at least half of the states tried to answer these questions: Licensure Test Scores. Three states had indicators that assessed students' knowledge and skills: Satisfaction Surveys (students, alumni, employers), and Test Scores, General Education and Majors. Missouri and Tennessee had long experience with such standardized exams, but Arkansas has only recently committed itself to implementing the appropriate tests. The surprise is that Florida with its College Level Academic Skills Test (CLAST) did not include this indicator. The reason probably lies in the controversy surrounding this rising junior exam as limiting access. With only three states opting for an indicator of standardized exams beyond those for licensure, fears that such testing would dominate as indicators of quality appear unfounded.

Another surprise is that only two states include an indicator on Assessment Student Learning, given the reported popularity of outcomes assessment in colleges and university. One explanation is that assessment has become a process used mostly by campuses for institutional improvement and not for external accountability. External Program Review also had support from only two states as a quality measure. Though favored by campus groups as a guarantor of quality, it lacks the confidence of state policy makers who suspect it is self-serving. The same might be said for Program Accreditation, which only two states used. The performance-funding programs also pay scant attention to the several traditional measures of quality long favored by the academy. New Student Preparation and Sponsored Research Funds appear in only three states. Class Size and Continuing to Graduate and Professional Education attracts just two states, while a campus favorite — Scholarly Publications — finds a place in only a single state. Most of the states favor a range of quality indicators that depended more on results than on the traditional inputs of resources and reputations. Still the dearth of indicators assessing the impact of college on the knowledge and skills of graduates suggests that, if academics are serious in their claims that quality counts more than quantity, they should devote more time and effort to developing suitable indicators.

The indicator choices of only 10 percent equity again suggest its decline as a policy value. None of the five indicators picked by four or more states have an equity goal; and only one (Faculty/Staff Diversity) appear in the 12 selected by three states. Of the 14 indicators used by two states, three relate to equity — Minority Graduates, Minority Undergraduate Access, and Student Access in general. The 27 indicators selected by a single state have four items: Gender Issues, Minority Graduation Rates, Minority Retention Rates, Transfer Graduation Rates, and Non-traditional Education. Once again, the total picture obscures the variations in state choices. Arkansas with 20 percent of its choices and Minnesota with 22 percent put considerable weight on the value of equity. Florida has eight percent; Colorado, six percent; and South Carolina, only three. Despite the stress shown by Arkansas and Colorado, a significant finding is the slight emphasis on equity, which once represented a must priority in state policy for public higher education. This is a dramatic departure from the ECS performance report study, where "Eight of ten states . . . report graduation and/or persistence statistics by race and gender, and almost as many explicitly monitor enrollment activity by ethnic group."[27]

The selection of indicators shows a corresponding shift in an equity related issue — the traditional goal of access. Only three out of eight states included an indicator on student access. Apparently, the old imperative of equity and access was giving way to new anxieties about efficiency and standards in public higher education. Values, or at least their emphasis in policy matters, do seem to change with the times. It would have been unthinkable in the 1970s and 1980s that all or at least most states would not have performance indicators stressing access and equity. Now these two goals seem squeezed between the new imperatives of efficiency and a notion of quality, which viewed it mostly as a matter of standards.

Choice has only one indicator, selected by Kentucky, Missouri, and Tennessee. These three states include a special indicator that give institutions a wide choice in picking a preferred measure of performance. Kentucky and Missouri specifically include an institutional choice indicator; and Tennessee permits a campus to select "measures of instructional improvement," based on weaknesses discovered through their performance-funding program. One of the problems presented by performance funding is how to emphasize statewide objectives yet recognize the diversity and distinctiveness of individual campus mission and goals. These three states address the issue of institutional diversity with a separate indicator of campus choice, though these and other states also emphasize institutional missions in indicator weights and success criteria.

## Models of Excellence

The indicators selected for reporting or funding also suggest — consciously or unconsciously — models of excellence for public colleges and universities, since they signify the goals and objectives that policy makers think successful institutions should pursue. As always, the models of excellence depend on the eye of the perceiver. The diverse stakeholders of higher education — the state and the lay public, students and their parents, and the academic community — mean multiple models. Alexander Astin and Richard Richardson have developed models of excellence for colleges and universities that reflect the interests and concerns of these stakeholders. Drawing on some of their concepts, this study uses three models of excellence for colleges and universities:

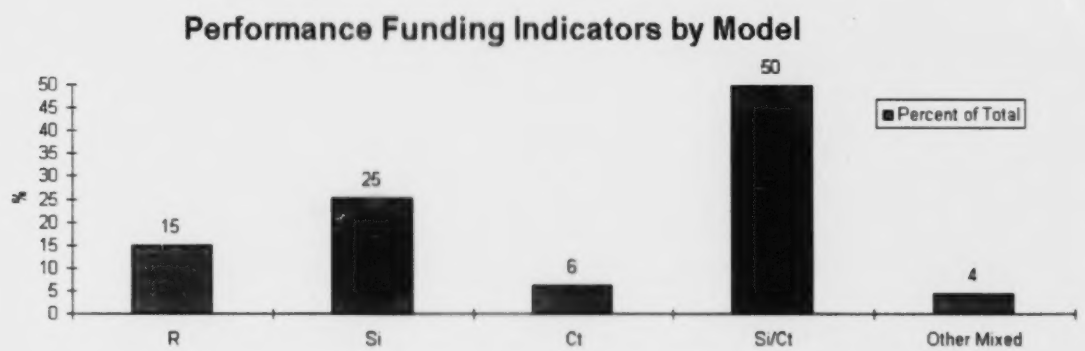
1. Resource/Reputation Model ( primarily a traditional faculty-oriented model);
2. Strategic Investment/Cost-Benefit Model (primarily a state-oriented model);
3. Client/Customer-Centered Model (primarily a student and other customer-oriented model).

The first combines Astin's two models of resource and reputation into one, since he concedes that both produce similar results or ratings.[29] The second uses Peter Ewell's concept of "Strategic Investment", which stresses the state's interest in seeing its funding of public higher education from a cost/benefit point of view.[30] Richardson also includes a cost-benefit model.[31] The third follows the customer or client-focus of the "quality movement." and — to a lesser extent — the "good educational practices" model advocated by the National Center for Higher Education Management System.[32] Astin's favored model of "talent development"[33] is not used, because few of the indicators seem to support it and because it overlaps in some ways the Client-Centered model. This model deserves more attention from policy makers when choosing performance indicators, since it offers mutual benefits to students and faculty as well as states and society.

The indicators selected or proposed for performance funding show the declining attraction of the Resource/Reputation model; the growing attachment to the Strategic Investment; the appearance of the Client Centered and the surprising appeal of a merged model of Strategic Investment and Client-Centered. When businesses, schools, and citizens are added to enrolled students as clients and the State is seen as a customer and not just as a supporter, the models of Strategic Investment and of Client Centered tend to merge, despite some conflicts in client interests. The gap between the two models is likely to close even more when constrained resources and competitive demands for tax dollars push states to limit their support for public higher education. The reality of limited resources will decrease the states' role as sponsors and is likely to increase their role as customers. States will see themselves less as the primary supporter providing funding and more as a "most favored" client purchasing products and services. The Client Centered already is, and the Strategic Investment is becoming, a market model, but the Resource/Reputation is a provider-driven model, out of step with new directions toward customer service in business organizations and increasingly in government agencies. Without using the terms, Governor Romer (in a chapter written supporting the ECS Agenda for 1994-95) clearly combines the Strategic Investment and the Client-Centered Models and rejects the Resource/Reputation paradigm for public higher education.[34]

Analysis of the indicators by the three models reveals these trends. The Resource/Reputation Model receives only 15 percent of the selections. The Strategic Investment Model draws 25 percent. Although only six percent of the choices show interest in the pure Client-Centered Model, an astonishing 50 percent favor a combined Model of Strategic Investment and Client-Centered. The Client-Centered orientation has only five exclusive indicators on the list, but it shares no less than 26 with Strategic Investment. On the other hand, the Client-Centered Model has only one joint indicator with the Resource/ Reputation model; and the Strategic Investment, only two. These results suggest that the gap between the state/student interests and the faculty-oriented Resource/Reputation model appears to have widened into a chasm, creating a great divide of conflicting aspirations for public higher education.

**Chart 8**

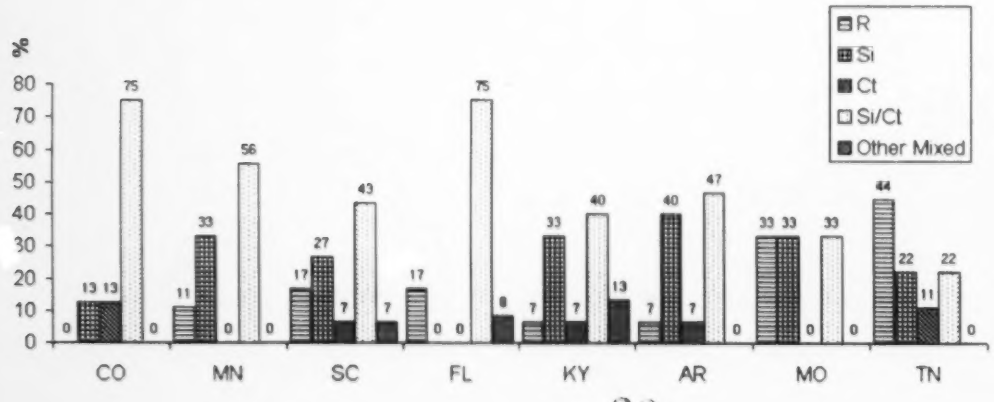


Few of the usual indicators for the Resource/Reputation model remain. Only one, Faculty Compensation, deals with the level of state funding, so fundamental to that model. The shift from the Resource/Reputation model is shown by the absence or slight attention to several hallmarks of this traditional model. The list contains no indicators of expenditures per student and numbers of library volumes; and only two states include Class Size. Florida alone has Scholarly Publications; and just South Carolina lists Faculty Compensation, Faculty Credentials, and Student/Faculty Ratios. Only two of those traditional indicators were used by three states. One, Sponsored Research Funds, represented an efficiency and productivity measure as well as a quality indicator. The second, New Student Preparation, probably expressed more concern about admission standards than institutional reputation.

Once again, the analysis by states reveals some important differences. Tennessee and Missouri, two states without mandate or prescription, show at least as much interest in the Resource/ Reputation Model as in the Strategic Investment or in its merger with Client-Centered. Tennessee has four indicators implying Resource/Reputation, and just two suggesting Strategic Investment and two the merged model. Missouri has three for each of the three models. The Mandated/ Prescribed states of Colorado and Minnesota show little or no interest in the indicators reflecting the Resource/Reputation Model, but again South Carolina includes a surprising number of indicators that follow this model with five, along with eight for Strategic Investment. Still, the percent of indicators of the Resource/Reputation Model in South Carolina of 17 percent is much less than the 33 percent in Missouri and 44 percent in Tennessee. The selections in all three Mandated/Prescribed states, including South Carolina, support the joint Strategic Investment/Client-Centered Model. Colorado and South Carolina have 12 such indicators and Minnesota five of its total of nine measures. The Mandated/Not Prescribed states of Florida shows some interest in the Resource/ Reputation model, but it has little attraction in Kentucky. The latter splits its selections between the Strategic Investment and its combination with the Client-Centered Model, with some preference for the latter. Though Florida has no indicators signifying the Strategic Investment or the Client-Centered models, it devotes an astonishing 75 percent of its indicators to their combination. Once again, the results in Arkansas — with only 7 percent Resource/Reputation, 40 percent Strategic Investment, and 47 percent for the merged model — resemble those of the Mandated rather than the Non-Mandated states.

**Chart 9**

**Performance Funding Indicators by Model**



The indicators do suggest an emerging interest in the Client-Centered Model but mostly through its merger with Strategic Investment. In the indicators chosen by four or more states none at first glance seem to fit a strict Client Model. But Retention/Graduation Rates; Time to Degree, Faculty Teaching Load, Instructional Staff/Cost, and Two-To-Four Year Transfers and the Use of Technology/Telecommunication/Distance Learning do address student concerns. The same is true for Job Placement and Workforce Training and Development in those indicators picked by three states; and Class Size, Continuing Education, and Faculty Evaluation in the indicators listed in two states. The separate indicators of single states exhibit an interest in the process improvement as well as the customer orientation of the Quality movement. This interest appears in Course Availability, Faculty Availability to Students Outside Courses, Faculty Post-Tenure Review, Internships and Cooperative Education, Average Sections Taught by Ranked Faculty, Non-Traditional Education; Priority In-State Students; Space Utilization for Academic Purposes; and Student Advising. The indicators also emphasize outside customers and clients other than students, as represented by schools, businesses, and increasingly the state.

## Conclusion

The performance funding indicators as adopted or proposed in most of the eight states obviously respond to external complaints about the quality and quantity of faculty teaching and student learning, the preoccupation with graduate studies and research and neglect of undergraduate education, the lack of priorities and productivity, the allowance of mission creep and program sprawl, and the swelling of administrative positions and support staffs. Much of that criticism focuses upon the questionable results of undergraduate education — of graduating too few of the students enrolled, of permitting too many to take too long to degrees, and of allowing too many to finish without the knowledge and skills for successful careers in a knowledge and information society. The performance-funding indicators selected by most states reflect these complaints. Of the five indicators picked by half or more of the states, all react to these charges. They include Retention and Graduation Rates, Faculty Teaching Load, Licensure Test Scores, Two- to Four-Year Transfers, and Use of Technology/Telecommunications/Distance Learning. Seven of the indicators selected by three states do as well: Job Placement, New Student Preparation, Non-Instructional Costs, Program Duplication, Satisfaction Surveys, and Test Scores in General Education and the Major and Time-to-Degree. The indicators concentrate on undergraduate education and almost ignore graduate studies and research in an obvious effort to right a perceived imbalance in the priorities of state colleges and universities.

Although the collective list of performance-funding indicators responds to common concerns, the choices among the states reveal a surprising lack of commonality. Given the attention in the media and government to complaints about teaching loads, administrative staffing and costs, time-to-degree, job placement, K-12/College cooperation, and the use of technology and distance learning, it is surprising that even more states did not to select indicators in these areas.

This study of the performance-funding indicators in eight states suggests the following conclusions:

- Despite selecting indicators from a common core of items often developed for performance reporting, the choices made in these eight states show a surprising lack of commonality.

- The external concerns of state policy makers rather than the internal concerns of the academic community dominate the choice of performance-funding indicators.
- The selection of outcomes assessment by only two states may suggest its decline as a vehicle for external accountability, which may also remove an important impetus for its internal use for institutional improvement.
- The types of indicators selected display a declining interest of state policy makers in inputs; a growing attraction to outputs and — to a lesser extent — outcomes, and a surprising acceptance of process measures.
- The heavy use of process measures represents in some cases temporary measures to allow the collection of the baseline data for planned output or outcome indicators, but it may also indicate a growing concern with institutional processes that flows from the quality and good educational practices movements.
- The policy values implied by the indicator selections exhibit increased interest in efficiency; a continued concern with quality; a diminished attention to equity and access and a growing attraction toward measures that combine efficiency and quality.
- The indicators do not support the common contention that state policy makers have abandoned interest in quality, but state leaders do define quality differently from the traditional view in academia.
- The models of excellence for public higher education implied by the indicator choices reveal the decline of the Resource/Reputation, the rise of the Strategic Investment, and the surprising popularity of a combined Strategic Investment and Client Centered.
- The emphasis on full-time students in many of the indicators — probably due to data availability — slights the growing importance of part-time students, especially in urban institutions.
- The indicators devote minimal attention to graduate studies and research.
- The performance-funding indicators seem designed to prod colleges and universities from provider-driven enterprises — motivated by the internal aspirations of administrators and faculty — into client-centered institutions, committed to meeting the external needs of students, states, and society.
- The state categories of Mandated/Prescribed, Mandated/Not Prescribed, and Not Mandated explain many, but not all, of the indicator selections and the concerns, values, and models embedded in them.

What lessons might be learned from this study by state and campus policy makers developing or revising performance-funding indicators?

1. The identification of preferred values and desired models for public higher education should precede and shape the choices of performance-funding indicators.

2. The list of indicators should be long enough to include critical objectives, yet short enough to set clear priorities. The first requirement probably suggests a minimum of 15 indicators; the second, a maximum of 25.

3. The indicators should give much more attention to part-time students and their special needs.

4. The indicators should include more emphasis on the mission of doctoral and research universities, which is vital to the economic competitiveness of the states.

5. The Florida experience suggests that output indicators with quicker results could be used for annual or biennial budgeting, while outcomes indicators with longer term impacts might be used periodically to shape state support for public colleges and universities.

6. Performance-Funding indicators should avoid the artificial and adversarial distinction between external accountability and internal improvement by choosing indicators that combine the Strategic Investment and the Client-Centered models.

7. State and campus leaders should design sets of indicators that reconcile quality and efficiency and reject the lingering notion of an inevitable conflict between these two critical values.

8. When states governments mandate performance funding, they should set broad priorities and goals and use a representative group of external stakeholders and internal professionals to develop the indicators, under the leadership of state coordinating boards and agencies, whose staff understand both perspectives.

9. When coordinating boards and agencies initiate performance funding without a mandate, they should also use a representative group of external and internal stakeholders to propose the indicators and not neglect the external concerns of state officials, legislators, and the general public.

10. Including an indicator allowing campus choice would recognize institutional diversity without subverting statewide needs and could engender campus support or at least diminish opposition.

11. Whatever the current political and social attitudes, access and equity are surely essential and enduring values for higher education that are worthy of inclusion in performance funding indicators.

12. Legislators need to remember that the struggle is seldom over when the performance-funding law is passed, for the process of implementation — especially in academic affairs — usually shapes the final product.

13. Academics need to remember when considering performance indicators that higher education exists, not to satisfy their individual or institutional aspirations but to meet the educational needs of students and society.

Now that performance funding has moved from the "unthinkable" to the "fashionable," and possibly to a "trend," it is crucial that its indicators should be carefully and collaboratively chosen and reflect the policy values of efficiency, quality, choice, and equity. They should flow from more inclusive models of excellence for public colleges and universities that reflect the diversity of

institutional types and the demands of multiple stakeholders. Performance-funding indicators should encourage a new notion of quality based on service not prestige. Though some indicators should stress the particular priorities of each state, surely a common core should recognize that what is most valued in higher education knows no boundaries.

## Notes

1. Peter Ewell, "Developing Statewide Performance Indicators For Higher Education," in Sandra S. Ruppert (Ed.), *Charting Higher Education Accountability: A SourceBook On State-Level Performance Indicators* (Denver: Education Commission of the States, 1994), p.152.

2. J. Kent Caruthers and Daniel Layzell, *Performance Funding at the State Level: Trends and Prospects.* Paper Presented to the 1995 Annual Meeting for the Study of Higher Education, Orlando, Florida, November 2, 1995, pp. 11-12.

3. Mary P. McKeown, *State Funding Formulas for Public Four-Year Institutions* (Denver: State Higher Education Executive Officers, February 1996), p. 14.

4. Maryland Higher Education Commission, *Higher Education Funding Study: Part I: Methods For Funding Higher Education in Other States* (Annapolis: Higher Education Commission, February 1996), p. 6.

5. Sandra S. Ruppert, *The Politics of Remedy: State Legislative Views on Higher Education* (Washington, D.C.: National Education Association, 1996), p. 37.

6. Trudy Banta, Linda Rudolph, Janice Van Dyke, Homer Fisher. "Performance Funding Comes of Age in Tennessee." *Journal of Higher Education*, vol. 67, no. 1, January/February 1996, 23-45; Stein, R. B & Fajen, A. L. "Missouri's Funding for Results Initiative." In Gerald H. Gaither (ed.), *Assessing Performance in an Age of Accountability: Case Studies, New Directions for Higher Education*, no. 91, 1995, 77-90; Stein, R. B., "Performance Reporting/Funding Program: Missouri's Efforts to Integrate State and Campus Strategic Planning," in Gerald Gathier (ed.), *Performance Indicators in Higher Education: What Works, What Doesn't, and What's Next.* Proceedings From the Pre-Conference Symposium (Texas A&M University System, June 1996), pp. 36-58.

7. See Appendix 3 for the sources for the state programs.

8. Florida has adopted two performance-funding programs: Performance Incentive Funding and Performance Based Program Budgeting. The University System submitted the 40 indicators for the Performance Based Budgeting Programs, but they were not approved by the Governor. The 17 indicators used in this article include those in the 1996-97 Budget Act, plus those approved by the Governor for Incentive Funding and Performance-Based Budgeting for the 1997-98 Budget.

9. *Developing statewide performance indicators for Higher Education: Policy and Themes*, ECS Working Paper (Draft), Denver: ECS, 1994, p. 16.

10. Roots and Realties of State-Level Performance Indicator Systems, in Gerald Gaither (ed.), *Assessing Performance in an Age of Accountability: Case Studies* (San Francisco: Jossey-Bass, 1995).

11. The indicators proposed for Performance Based Program Budgeting did include an item on access.

12. Ewell, *Charting*, p. 150; Gerald Gaither, Brian P. Nedwek, John E. Neal, *Measuring Up: The Promises and Pitfalls of Performance Indicators in Higher Education.* ASHE/ERIC Higher Education Report, no. 5 (Washington: The George Washington University, 1994), p. 38.

13. Ewell, *Charting*, p. 155.

14. Richard C. Richardson, Jr.,"Effectiveness in Undergraduate Education: An Analysis of State Quality Indicators," in Ewall, *Charting*, p. 133.

15. Peter T. Ewell and Dennis P. Jones, "Pointing the Way: Indicators As Policy Tools in Higher Education," in *Charting*, p. 10.

16. "Effectiveness in Undergraduate Education: An Analysis of State Quality Indicators," *Charting*, pp. 131-132, 145. For the belief in a clash between external accountability and institutional improvement, see Ewell, Ibid., pp. 161-62.

17. Ibid., pp. 136-39.

18. Ibid., pp. 135.

19. Daniel T. Seymour, *On Q: Causing Quality in Higher Education.* (Phoenix: American Council on Education/Oryx Press, 1993).

20. Indicators of Good Practice: New Tools For New Times, *NCHEMS News*, Vol. 9, March 1994.

21. Richardson, *Charting*, p. 135.

22. Educational Commission of the States, *Making Quality Count In Undergraduate Education* (Denver: Educational Commission of the State, 1995), Foreword, p. v.

23. Richardson, *Charting*, p. 132.

24. Catherine Marshall, Douglas Mitchell, Frederick Wirt, *Culture and Education Policy in the American States.* (New York: The Faber Press, 1989).

25. Richardson, *Charting*, p. 132.

26. For a discussion of the difficulties and possibilities of assessing quality in higher education, see E. Grady Bogue and Robert L. Saunders, *Evidence For Quality: Strengthening the Tests of Academic and Administrative Effectiveness* (San Francisco: Jossey-Bass, 1992).

27. Ewell, "Developing Statewide Performance Indicators for Higher Education: Policy and Themes," Ibid., p. 155.

28. Astin, *Assessment For Excellence: The Philosophy and Practice of Assessment and Evaluation in Higher Education.* (Phoenix: American Council on Education/The Oryx

Press, 1993), pp. 5-7; Jones and Ewell, "Pointing the Way: Indicators As Policy Tools In Higher Education," in *Charting*, pp. 11-12; Richardson, *Charting*, pp. 138-43.

**29.** Astin, *Achieving Educational Excellence: A Critical Assessment of Priorities and Practices in Higher Education* (San Francisco: Jossey-Bass, 1985) pp. 39-41.

**30.** Ewell and Dennis P. Jones, *Charting*, p. 12.

**31.** Richardson, Ibid., p.140.

**32.** "Indicators of 'Good Practice'," *NCHEMS News*, vol. 9, March 1994; Education Commission of the States, *Making Quality Count in Undergraduate Education* (Denver: ECS, 1995), Chap. 3; Jones and Ewell, *The Effect of State Policy on Undergraduate Education* (Denver: ECS, March 1993).

**33.** Astin, *Achieving Excellence*, pp. ix, 16.

**34.** ECS, *Quality Counts*, Chap. 1.

## Appendix 1
## Categories of Indicators and Measures Used or Proposed in Performance/Incentive Funding Programs in Arkansas, Colorado, Florida, Kentucky, Minnesota, Missouri, South Carolina, Tennessee (two-year colleges)

| | | *AR* | *CO* | *FL* | *KY* | *MN* | *MO* | *SC* | *TN* | *Predominant* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | *Type* | *Value* | *Concern* | *Model* |
| 8 | 1. Retention/Graduation Rates (All Students) (Increase) | X | X | X | X | X | X | X | X | Op | Ef | Ext | Si/Ct |
| 4 | 2. Faculty Teaching Load (Increase) | X | X | X | | | | X | | P | Ef | Ext | Si/Ct |
| | 3. Licensure Test Scores | X | X | X | | | | X | | Oc | Qu/Ef | Ext | Si/Ct |
| | 4. Two-to-Four Year Transfers (High/Increase) | X | X | | | | X | X | | I | Ef | Ext | Si/Ct |
| | 5. Use of Technology Telecommunication/Distance Learning (Increase) | | X | X | X | X | | | | P | Ef/Eq/Qu | Ext | Si/Ct |
| 3 | 6. Credit on Graduation/Time To Degree (Decrease) | | X | | | X | | X | | Op | Ef | Ext | Si |
| | 7. Faculty/Staff Diversity (Increase) | X | | | X | X | | | | Oc | Eq | Ext | Si |
| | 8. Institutional Choice | | | | X | | X | | X | P | Ch | Int | R |
| | 9. Job Placement (Improve) | | X | | | X | | X | | Oc | Ef | Ext | Si/Ct |
| | 10. New Student Preparation (Improve) | | | | | X | X | X | | I | Qu | Int | R |
| | 11. Non-Instructional Staff/Cost (Decrease) | X | X | | | | | X | | P | Ef | Ext | Si |
| | 12. Program Duplication (Decrease) | X | | | | X | | X | | P/Op | Ef | Ext | Si |
| | 13. Satisfaction Surveys (student, alumni or employer) | X | | | | | | X | X | Oc | Qu | Ext/Int | Ct |
| | 14. Sponsored Research Funds (Increase) | | | X | X | | | X | | Op | Qu/Ef | Int | Si/R |
| | 15. Teacher Education (Improve) | | | | X | | X | X | | P | Qu | Ext | Si |
| | 16. Test Scores, Gen Ed, Majors | X | | | | | X | | X | Oc | Qu/Ef | Ext | Si |
| | 17. Workforce Training, Development (Increase/Expand) | X | X | | X | | | | | P | Ef | Ext | Si/Ct |
| 2 | 18. Assessment Student Learning | | | | X | | X | | | P | Qu | Int | Si |
| | 19. Class Size | | | X | | | | X | | P | Qu/Ef | Int | Si/Ct |
| | 20. Effective Management | | | | X | | | X | | P | Ef | Ext | Si |
| | 21. External Program Review | X | | | | | | | X | P | Qu/Ef | Int | R |
| | 22. Faculty Evaluation | | X | | | | | X | | P | Qu/Ef | Ext | Si/Ct |
| | 23. Graduate Education | | | | | | X | | X | P/I | Qu | Int | R |
| | 24. Institutional Cooperation (Increase) | | | | X | | | X | | P | Ef/Qu | Ext | Si |
| | 25. Instructional and Staff/Cost (Increase) | | | | | X | | X | | P | Ef/Qu | Ext/Int | Si/Ct |
| | 26. K-12 Linkage | | X | | X | | | | | P | Ef/Qu | Ext | Si/Ct |
| | 27. Minority Graduates (Increase) | X | | | | | X | | | Op | Eq | Ext | Si/Ct |
| | 28. Minority Undergraduate Access (Increase) | | | | | X | | | X | I | Eq | Ext | Si/Ct |
| | 29. Program Accreditation (Increase) | | | | | | | X | X | Oc | Qu | Int | R |
| | 30. Public Service (Increase) | | | X | | | | X | | Op/P | Qu/Ef | Ext | Si/Ct |
| | 31. Student Access (Increase) | | X | | | | | X | | I | Eq | Ext | Si/Ct |

| | | AR | CO | FL | KY | MN | MO | SC | TN | Predominant | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Type | Value | Concern | Model |
| I | 32. Achieving Planning Goals | | | | | | | X | | Op | Ef | Ext | Si |
| | 33. Continuing Education (Increase) | | | | | | | X | | P | Qu | Ext/Int | Si/Ct |
| | 34. Continuing to Graduate/Professional Education (Increase) | | | | | | | X | | Oc | Qu | Int | R |
| | 35. Course Availability | | X | | | | | | | P | Qu/Ef | Ext | Si/Ct |
| | 36. Faculty Availability to Students Outside Courses | | | | | | | X | | P | Qu/Ef | Ext | Ct |
| | 37. Faculty Compensation | | | | | | | X | | I | Qu | Int | R |
| | 38. Faculty Credentials | | | | | | | X | | I | Qu | Int | R |
| | 39. Faculty Post Tenure Review | | | | | | | X | | P | Qu/Ef | Ext | Si/Ct |
| | 40. Fund Raising | | | | X | | | | | Op | Qu | Int | Si/R |
| | 41. Gender Issues | | | | X | | | | | P | Eq | Ext/Int | Ct |
| | 42. Global Perspectives | | | | X | | | | | Oc | Qu | Ext/Int | Ct |
| | 43. Internships, Cooperative Education | | X | | | | | | | P | Qu | Ext/Int | Ct |
| | 44. Meet Enrollment Goals | | | | | | | | X | P | Ef | Ext/Int | Si |
| | 45. Minority Graduation Rates for Transfers and First-Time Students | | | X | | | | | | Op | Eq | Ext | Si/Ct |
| | 46. Minority Retention Rate (Increase) | X | | | | | | | | Op | Eq | Ext | Si/Ct |
| | 47. Mission Focus | | | | | | | X | | P | Ef | Ext | Si |
| | 48. Non-Traditional Education | | | | X | | | | | P | Eq | Ext | Si/Ct |
| | 49. Number of Patents, Copyrights Secured by Faculty | | | X | | | | | | Op | Qu | Ext/Int | R |
| | 50. Number of Scholarly Publications, Performances, and Exhibitions | | | X | | | | | | Op | Qu | Int | R |
| | 49. Number of Degree and Certificate Completers, Requiring Remediation | | | | | | | | | | | | |
| | 50. Number of Degree and Certificate Completers, Economically Disadvantaged | | | | | | | | | | | | |
| | 51. Priority In-State Students | | | | | | | X | | I | Ef | Ext | Si/Ct |
| | 52. Program Productivity (Increase) | X | | | | | | | | P | Ef | Ext | Si |
| | 53. Proportion of Credit Hours Taught Per Ranked State Funded Faculty Member | | | X | | | | | | P | Qu/Ef | Ext | Si/Ct |
| | 54. Retention, Developmental Students | X | | | | | | | | Op | Ef | Ext | Si |
| | 55. Space Utilization for Academic Purposes | | X | | | | | | | P | Ef | Ext/Int | Si/Ct |
| | 56. Student/Faculty Ratios | | | | | | | X | | I | Qu/Ef | Int | R/Ct |
| | 57. Student Advising | | X | | | | | | | P | Qu | Ext | Ct |
| | 58. Transfer Graduation Rates | | | X | | | | | | Op | Ef | Ext | Si/Ct |

**Legend:**
**Type of Indicators: I-input; P-process; Op-output; Oc-outcome;**
**Value of Indicators: Ef-efficiency; Qu-quality; Eq-equity; Ch-choice;**
**Concern reflected by indicators: Ext - external; Int - internal;**
**Model reflected by indicators: R - reputational; Si - strategic investment; Ct - Customer Oriented;**



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**Appendix 2**
**State University System of Florida**
**Incentive Funding and Performance Based Budgeting**
**Outcome/Output Measures**

Proposed Measures to be used for Incentive Funding

- Predicted FTIC graduation rates vs. Actual rates using average SAT/ACT scores.
- Minority graduation rates.

Performance Based Program Budgeting

*Instruction*

E&G/IFAS

- Graduation rates for AA transfers and FTIC students.
- Minority graduation rates for AA transfers and FTIC students.
- Proportion of fundable credit hours taught by state-funded ranked faculty members.
- Percentage of fundable credit hours generated through distance learning courses as a total of fundable credit hours.
- Average sections taught per state-funded ranked faculty member.

USF Medical Center

- Number and percent of SUS graduates passing licensure and certification exams in their first two sittings.

UF Health Center

- Number and percent of SUS graduates passing licensure and certification exams in their first two settings.

*Research*

*E&G*

- Number of scholarly publications, performances and exhibitions produced.
- Number of patents and copyrights secured by SUS faculty.
- Contract and Grant research dollars expended per state-funded faculty member.

IFAS

- Number of scholarly publications produced.
- Number of patents and copyrights secured by SUS faculty.

- Contract and Grant research dollars expended per state-funded faculty member.

USF Medical Center

- Number of scholarly publications produced.
- Number of patents and copyrights secured by SUS faculty.
- Contract and Grant research dollars expended per state-funded faculty member.

UF Health Center

- Number of scholarly publications produced
- Number of patents and copyrights secured by SUS faculty
- Contract and Grant research dollars expended per state-funded faculty member

This suggests a combination of funding for the future, which participants from all sides now view as probable.

The future fate of Performance Based Program Funding for Colleges and Universities in Florida remains in doubt. The Governor's Office continues to support this comprehensive program, the Senate has pressed for and obtained a more limited program of called Incentive Funding, which ties limited amounts of state funding for a very short list of performance indicators that are mostly outputs not outcomes. The State University, in December of 1996, submitted a much shorter list of performance indicators for the Performance Based Budgeting:

1. Graduation rates for First Time Students and Transfers.
2. Minority Graduation Rates for First Time Students and Transfers.
3. Faculty Teaching Load.
4. Percentage of Credit Hours Generated Distance Learning Courses as a Total of All Credit Hours.
5. Licensure Test Scores (Health Science Centers).

## Appendix 3
## Sources for State Performance Indicators

*Arkansas*

Arkansas Department of Higher Education, *1995-96 Productivity Funding.*

Arkansas State Board of Higher Education, *Strategies for Improvement: Productivity Enhancement for Arkansas Higher Education* (Little Rock: Arkansas Board of Higher Education), January 28, 1994.

*Colorado*

(The Indicators are partly prescribed in statute and partly developed by the Commission) Colorado Revised Statutes 23-1-105

Colorado Commission on Higher Education (CCHE), March 7, 1996. Agenda Item IV, F

*Florida*

State University System, *Performance Based Budgeting*

State University System of Florida, Incentive Funding and Performance Based Budgeting Outcome/Output Measures

*Kentucky*

Kentucky Council on Higher Education: Performance Funding; Action Item CHE (F-1) FC (C-1), July 15, 1996

*Minnesota*

Laws of Minnesota for 1995, Chapter 212, Article 1, Section 3 & 5.

*Missouri*

Missouri Coordinating Board for Higher Education, Appropriations Requests Fiscal Year 1997. October 27, 1995.

*South Carolina*

South Carolina, General Assembly Bill 1145.

South Carolina Commission on Higher Education, Special Report No. 1, July 1996. Performance Funding: A Summary of Major Provisions of Act 359 and Commission Planning Structure, July 1996.

*Tennessee*

Tennessee Higher Education Commission, *Performance Funding Handbook*, June 19, 1996.

# Performance-Funding Indicators for Two-Year Colleges: Do They — Should They — Differ From Baccalaureate Measures?

*Joseph C. Burke*

If the adage is true that what gets measured is what gets valued, then what gets funded should indicate even more what is prized. The indicators picked for performance funding should provide clues about the attitudes of state policy makers toward community colleges and baccalaureate campuses. This study compares the similarities and differences in the indicators used for community colleges with those for baccalaureate institutions in Arkansas, Colorado, Florida, Kentucky, Minnesota, Missouri, South Carolina, and Tennessee. The goal is to probe for answers to several questions. What do the similarities and differences in indicators suggest about the attitudes of policy makers toward these two types of institutions? Do these two categories of campuses share — and should they share — the same indicators? Are the values, concerns, and models of excellence that lie behind the choices of indicators for these two sectors similar or different?[1]

## Creating Comparative Core Indicators

Comparing the indicators of the two- and four-year campuses is challenging. The eight states in this study took five different approaches to developing indicators for their two-year colleges. Arkansas, Colorado, and Kentucky have the same indicators for both types of institutions, although Kentucky allows considerable institutional choice among indicators and has mandated indicators for each of the sectors. Missouri and Tennessee have mostly common indicators, but add an alternate item for their two-year colleges. Job Placement is substituted for the measure on Graduate Education, which is used for baccalaureate campuses. Minnesota has separate programs for the University of Minnesota and its State College and University System, which includes the community colleges. South Carolina allows its two-year institutions to delete inappropriate indicators from the prescribed list.[2] Florida is the only state that has separate indicators for two- and four-year institutions. Lacking a strong coordinating agency, performance-funding indicators were developed separately by the Division of Community Colleges and the State University System, with separate consultations with staff in the Governor's office and the Legislative Committees. Apparently, the preparation involved little or no coordination between the two sectors.

One other difference between the two types of campuses is significant. The performance-funding program in all of the states for baccalaureate colleges and universities applies to individual institutions. But Kentucky implements the program for its community colleges as a system rather than for individual colleges. The same approach was originally proposed and rejected for community colleges in Florida. Linking performance funding to the system, rather than to individual colleges,

sought to protect campuses from state intrusions on their local control and to prevent the possibility of unfair comparisons of institutional performance. This strategy provoked considerable opposition from policy makers in both states, who argued that institutions, not systems, educate students and serve communities and that evaluating performance requires institutional comparisons.

## Performance Funding and Reporting Indicators

The list of indicators for performance funding for both sectors parallels those selected for performance reporting:

- Retention/Graduation Rates,
- Faculty Teaching Load,
- Job Placement,
- Licensure Test Scores,
- Satisfaction Surveys,
- Time-to-Degree, and
- Two-year College Transfers.

Aside from the indicator on teaching loads — which were admittedly heavy in community colleges — these measures seem appropriate for two-year institutions. Critics have complained about their low retention, graduation, and transfer rates and the excessive time-to-degree of many of their graduates, due, in part, to excessive requirements of credits in a number of professional and technical programs. Inclusion of indicators on Licensure Test Scores also appears proper, given the emphasis in comprehensive community colleges on professional and technical programs that require external examination for admission to practice. Job placement seems an obvious indicator, since it constitutes a major mission of these colleges, along with baccalaureate transfer. Surveys of students, alumni, and especially employers support their goal of responding to student and community needs.

One significant shift in performance funding from performance reporting is the move away from indicators for both sectors on ethnicity and gender, which were so prevalent in the performance reports. The indicators for community colleges show even less emphasis on ethnicity than their baccalaureate counterparts. Just two states include Minority Graduates for both sectors. Minority Access appears in the indicators for four-year campuses in two states but only in one state for community colleges. Just one state chooses Minority Retention Rate and Minority Graduation Rate, with the latter restricted to baccalaureate institutions. A single state includes a gender indicator and this measure applies to both sectors. The indicators in Florida, focusing on degree completers enrolled in programs for students with economic, physical, and academic problems, seem motivated at least as much by efficiency as equity concerns and not one of these indicators relates to race. One surprising omission from the ECS list, Faculty/Staff Diversity, was selected in three states for performance funding for four-year campuses but in just two states for two-year colleges. The scarcity of indicators related to race depart dramatically from the indicators used for performance reporting. The ECS study on performance reports notes that eight of the ten states "... report graduation and/or persistence statistics by race and gender, and almost as many explicitly monitor enrollment activity by ethnic group."[3]

The stress on access that appears in the indicators for performance reporting also diminishes in those selected for performance funding. Only Colorado — which anticipates large increases in student demand — and South Carolina — which has no such pressures — insert this item for both sectors. Florida, with projected enrollment demands second only to California, does not include a Student Access indicator for either category of campus, though the initial University proposal had such a measure.[4] The performance-funding indicators also place much less emphasis on total enrollments and credits produced than do those used in performance reporting. In addition, they show less interest in gross production statistics, such as the number of degrees granted in total or by discipline.

Although only Colorado and Florida of the eight states in this study were facing large increases in enrollment demand, many were southern states with a comparatively low college-going rates. To be sure, all of these states currently have budget practices that include enrollment and therefore encourage access, especially for community and technical colleges. Still, the absence of an access indicator in most of the performance-funding plans is surprising and may signal a retreat from access as well as equity at least in baccalaureate institutions — perhaps in response to the complaints that too many unqualified students are seeking four-year degrees. The lack of an access indicator in six states for their two-year colleges may flow from the recognition that they automatically offer access through open admissions. But it may also hint at an erosion of access as an article of faith for community colleges. Whatever the reasons or the portents, few programs could have been launched or even considered for public higher education — and especially for two-year colleges — in the 1970s and 1980s without stressing the goals of access and equity. Apparently in the 1990s, the old imperatives of equity and access are being squeezed by new anxieties about efficiency and standards, which hit first at baccalaureate campuses but reaches community colleges as well.

If the performance-funding indicators repeat many of the items in the performance reports, they also introduced new policy issues. Indicators on the use of technology and distance learning, administrative versus academic costs, and program productivity and duplication voice more current concerns of state policy makers. However, these new concerns seem less prevalent in the indicators for community colleges than in those for baccalaureate institutions. This diminished emphasis probably results from their focus on the local community. On the other hand, state needs, especially workforce training and economic development, also receive added attention, which should suit the mission of community colleges.

## Common Indicators

It is not surprising that the performance-funding programs for both two- and four-year institutions share common indicators with performance-reporting systems. What is surprising is the lack of commonality among the states in their choice of indicators for both sectors. Retention/Graduation Rates is the indicator selected by nearly all the states: eight states for baccalaureate campuses and seven for community colleges. Florida includes that measure for four-year but not for two-year campuses. The ECS study of ten states reported that all of them included this indicator in performance reporting.[5] After that one indicator, common choices become scarce. Out of a total of 55 indicators for two-year and 58 for four-year institutions, both sectors have just five indicators

picked by four or more of the states — only nine percent of their total number. Moreover, only three of those five measures apply to both baccalaureate campuses and community colleges.

**Indicators Selected By Four Or More States**

| *Baccalaureate Institutions* | *Community College* |
|---|---|
| Retention/Graduation Rates (8) | Retention/Graduation Rates (7) |
| | Job Placement (6) |
| Two to Four Year Transfers (4) | Two to Four Year Transfers(4) |
| Licensure Test Scores (4) | Licensure Test Scores (4) |
| Faculty Teaching Load (4) | Credits on Graduation/Time to Degree (4) |
| Use of Technology/Telecommunications/Distance Learning (4) | |

Six states select Job Placement for their two-year colleges but only three for four-year institutions. Florida, Missouri, and Tennessee inserted it for the former but not for the latter — probably because of the conviction that the two-year colleges should be tied more closely to the job market and, hopefully, not because of a belief that their baccalaureate institutions had no responsibility for job placement. As noted above, Tennessee and Missouri substitute Job Placement for community colleges for a baccalaureate measure on Graduate Education. The surprise is that all eight states did not include this indicator for community colleges, since job training constitutes a primary mission for these campuses. The same could be said for Two- to Four-Year Transfers, which constitutes another major mission of two-year campuses.

Only seven additional indicators for community colleges manage to draw support from three states, representing just 13 percent of the total number on the list in Appendix 1. (The baccalaureate group has 12, or 21 percent, of their total.)

1. Faculty Teaching Load.
2. Institutional Choice.
3. Non-Instructional Staff/Cost.
4. Satisfaction Surveys (Student, Alumni, or Employer).
5. Test Scores, General Education, Majors.
6. Use of Technology/Telecommunication/Distance Learning.
7. Workforce Training, Development.

All of these indicators were shared with four-year institutions and were not selected especially for community colleges. Some of the indicators were of less concern to two-year colleges, such as faculty teaching load, which was admittedly heavy in these institutions, and program duplication, since they drew students mostly from their local communities. But others seem so critical to their mission that one would have expected support from more than three states. One example is Satisfaction Surveys of student, alumni, and especially employers, given the mission of meeting the needs of local students and area businesses. Another is Workforce Training and Development, which is surely one of the primary purposes of community colleges.

The rest of the indicators tell a similar story. The lack of common choices continues for community colleges. Two states selected just 13 additional indicators for these colleges. And no

less than 30 indicators — 55 percent of their total number — were picked by only a single state for its two-year institutions. Baccalaureate campuses had 27 used in one state, 47 percent of their total. Some of the indicators chosen by only one or two states seem particular pertinent to the community colleges that promise responsiveness to student and community needs. Only one of the eight states, usually a different one, has an indicator on Continuing Education, Public Service, Remedial Education, Student Advising, Faculty Availability to Students Outside of Courses, and Course Availability — most of which seem especially critical to the fundamental purposes of community colleges. The same is true for K-12 Linkage, an indicator used by only two states, which is central to the Tech Prep and other school-to-work programs of two-year colleges. Selecting indicators for performance-funding programs compels difficult choices among competing items, but surely those choices should stress the promised priorities of community colleges. Probably the availability of data — or rather the lack of it — explains some of these choices. But this reality only suggests that two-year colleges should move swiftly and vigorously to improve inadequate information systems. If it is true that what gets measured is what gets valued, then surely what is valued should get measured.

## Indicator Types

Selecting indicator types represents a critical choice for performance-funding programs. They divide into Input, Process, Output, and Outcome. Multiple designations are used for indicators that fit more than one type of activities and services. The indicator types chosen for baccalaureate institutions exhibit a change from those used in performance reports: a drop in inputs, some shift to outputs and, to a lesser extent, outcomes, and an astonishing acceptance of process measures. The indicators for community colleges show the same trends, with lower percents for inputs and higher percents for outcomes. A large portion of this shift for two-year colleges came from the change of the single indicator of Two- to Four-Year Transfers from an input for four-year institutions to an outcome for community colleges. Both sectors showed the same heavy reliance on process indicators.

**Chart 1**

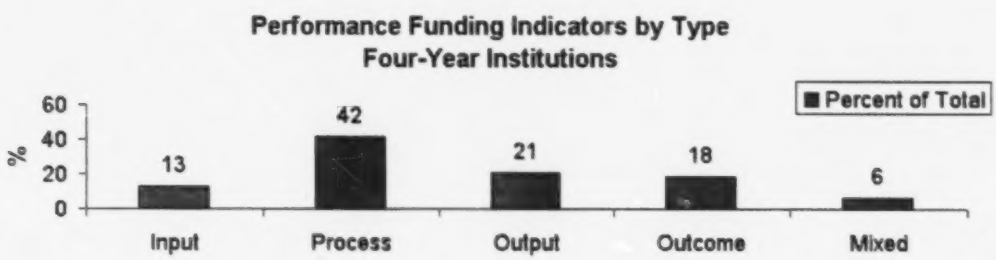
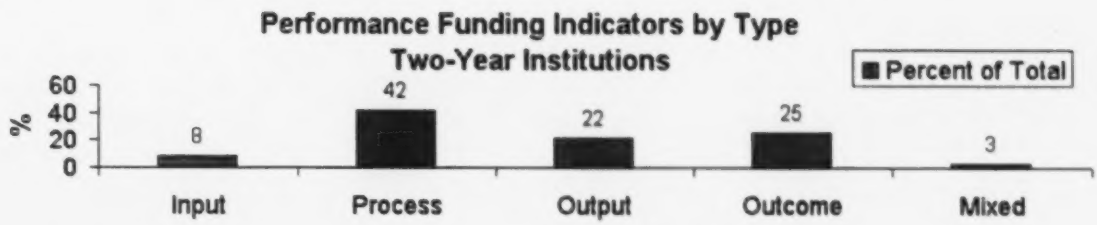



**Chart 2**



This overall picture of indicator types conceals some differences. They stem mostly from the four states with separate, or some different, indicators for community colleges and from the switch of the transfer indicator from an input to an outcome. In Florida, with separate sector indicators, process indicators plunge to zero for community colleges, while output and outcomes soar. In Minnesota, with some different measures, input indicators also fall to zero for community colleges and process and output indicators nearly double. South Carolina, with mostly the same indicators for its two- and four-year institutions, shows some drop in inputs and a similar rise in outcomes. Missouri also has a fall in input indicators from baccalaureate campuses to community colleges and a corresponding rise in outcomes. Tennessee has an increase in outcomes without a decline in inputs. Despite using the same indicators for two- and four-year campuses, Arkansas and Colorado show a drop in inputs and a parallel rise in outcomes, because their transfer indicator moves from an input for baccalaureate institutions to an outcome for community colleges.

**Chart 3**

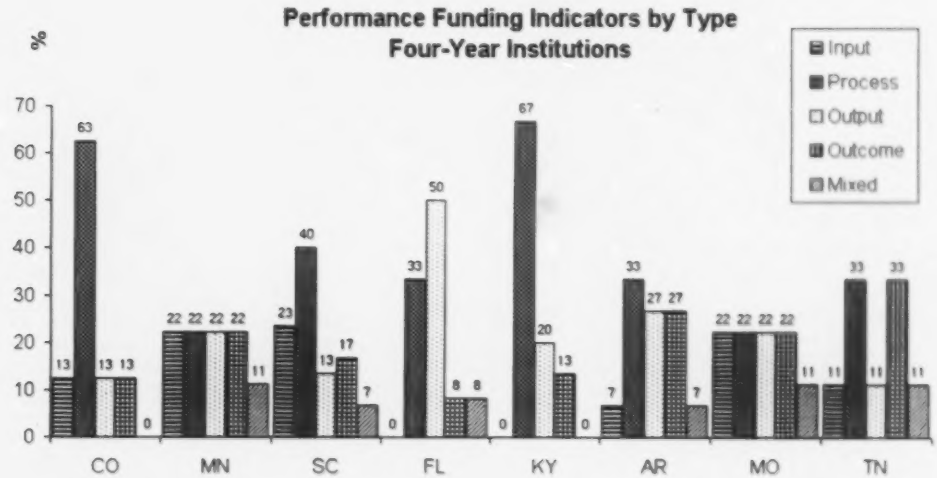
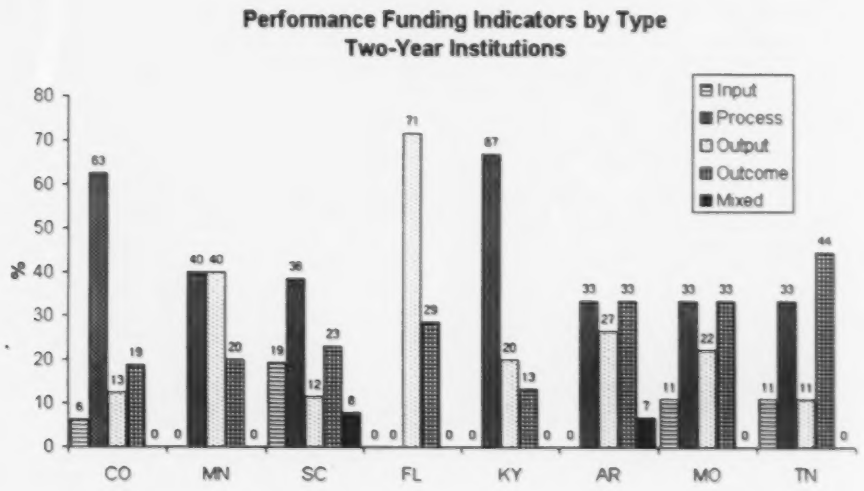



**Chart 4**



## External Versus Internal Concerns

The specific indicators used for performance reporting or performance funding tend to reflect either the external concerns of state officials and society at large or the internal concerns of the academic community. External concerns dominate the indicators for both four- and two-year institutions, but they are even more dominant for community colleges.

**Chart 5**

**Performance Funding Indicators Reflecting External/Internal Concerns**
**Four-Year Institutions**

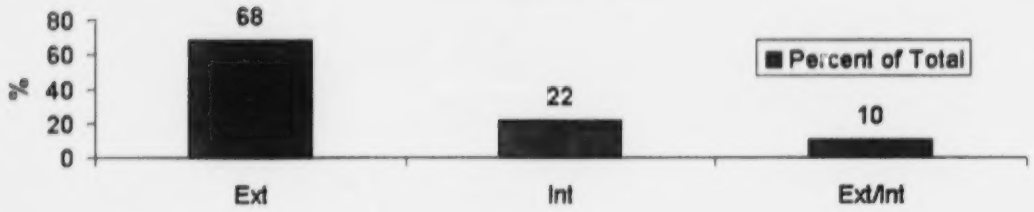
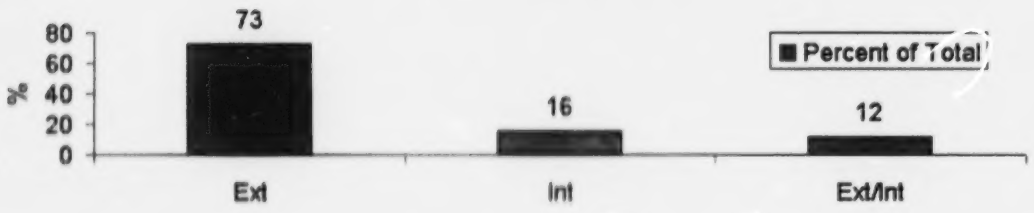



**Chart 6**

**Performance Funding Indicators Reflecting External/Internal Concerns**
**Two-Year Institutions**




As with all big pictures, this depiction conceals as well as reveals, especially because of the different approaches to indicator selection for two-year colleges. Adding the details state by state, and especially by the categories of whether the state programs were mandated and prescribed in legislation, provides a different perspective for both two- and four-year campuses. The choices of indicators for baccalaureate institutions reflecting external and internal concerns follow fairly closely the predictions for the three categories of performance-funding programs: Mandated/Prescribed, Mandated/Not Prescribed, and Not Mandated.

For baccalaureate institutions, the indicators in the Mandated/Prescribed states of Colorado, Minnesota, and South Carolina clearly stress external over internal concerns. The Mandated/Not Prescribed states of Florida and Kentucky emphasize external without slighting internal concerns. The Not Mandated states of Missouri and Tennessee show more balance between the two concerns.

However, Arkansas — with the same indicators for associate and baccalaureate institutions — breaks this pattern with 87 percent external and only 7 percent internal-oriented indicators.

The performance indicators for two-year colleges exhibit even a stronger push for external over internal concerns. The Mandated/Prescribed states continue to fit the predicted pattern for community colleges. Indeed, in Minnesota and South Carolina — with some different indicators for the two sectors — the percentages of external indicators rise and the internal measures fall, though mostly by relatively small amounts. One of the two Mandated/Not Prescribed states, Kentucky, with the same indicators for both sectors, meets the expectation, with 60 percent external and 20 percent internal. But Florida, with separate indicators for the sectors, breaks the pattern of Mandated/Not Prescribed states, which should favor external but not neglect internal concerns. In Florida, indicators expressing external concerns soar to 100 percent for community colleges. Two of the Not Mandated states, Missouri and Tennessee, also follow the prediction. But even these two states increase the indicators stressing external concerns and reduce those suggesting internal interests for their two-year colleges. The third Not/Mandated state, Arkansas, with the same indicators for both sectors, continues as an outlier, with overwhelming support for indicators of external concerns and little interest in those that are internally oriented. The predictions for mandate and prescription on external versus internal concerns fit fairly well for community colleges but not as well as for their baccalaureate counterparts.

**Chart 7**

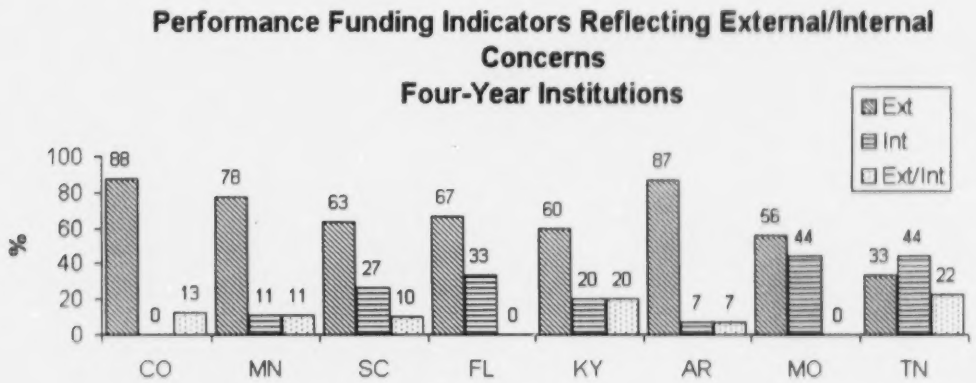
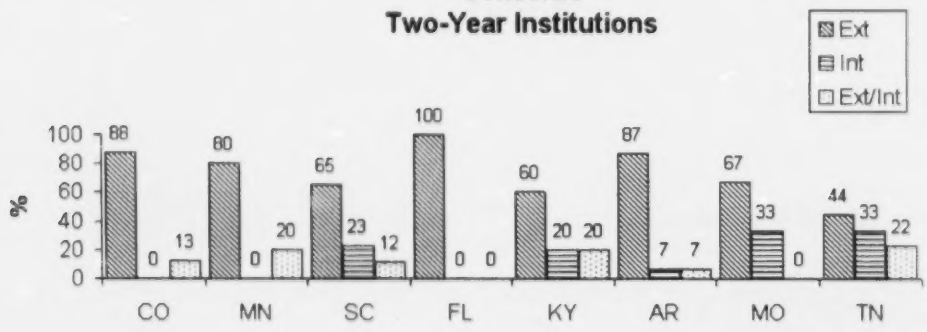



**Chart 8**



## Policy Values

State policies in higher education reflect, consciously or unconsciously, the core social values of choice, equity, efficiency, and quality. This study designates each of the indicators used by the eight states for performance funding as implying one or a combination of these four values.

The values implied by the indicators selected for two-year colleges and baccalaureate campuses show some differences. The former have a somewhat higher percent of efficiency indicators coupled with an equal decline in quality indicators. The two sectors have nearly the same low percentage of equity indicators and high percentage of indicators suggesting a combination of efficiency and quality. Choice has little support from either sector. Overall, the indicators for both two- and four-year institutions stress efficiency over quality, with those of community colleges leaning even more in that direction. An intriguing statistic for both sectors is that the policy value earning the second highest percentage after efficiency is its combination with quality. This interesting result suggests that state policy makers may not believe — as do many academics — in the inevitable conflict between efficiency and quality.

**Chart 9**

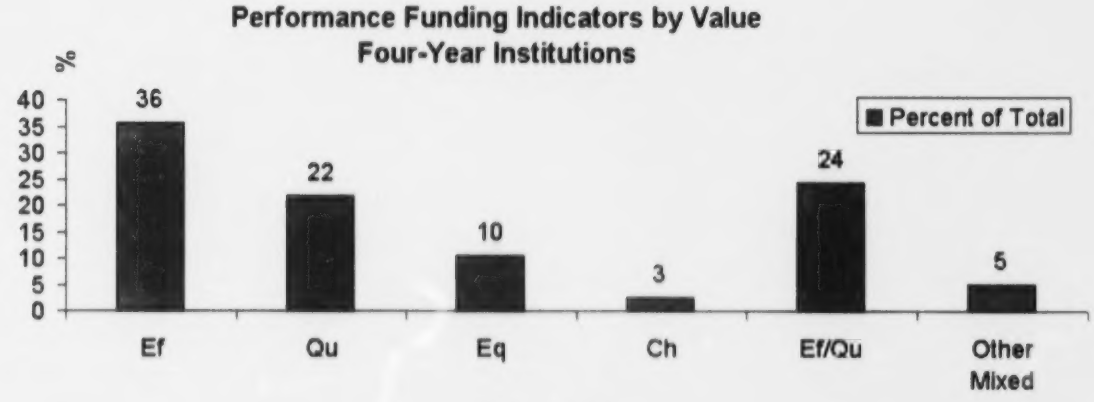
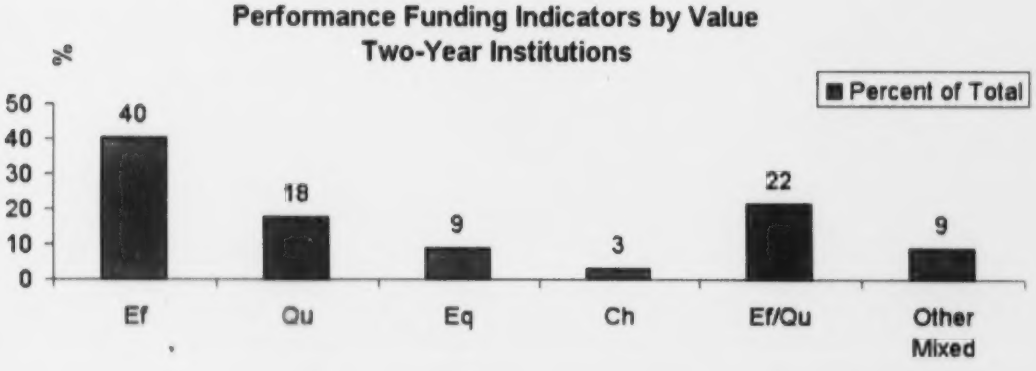



**Chart 10**

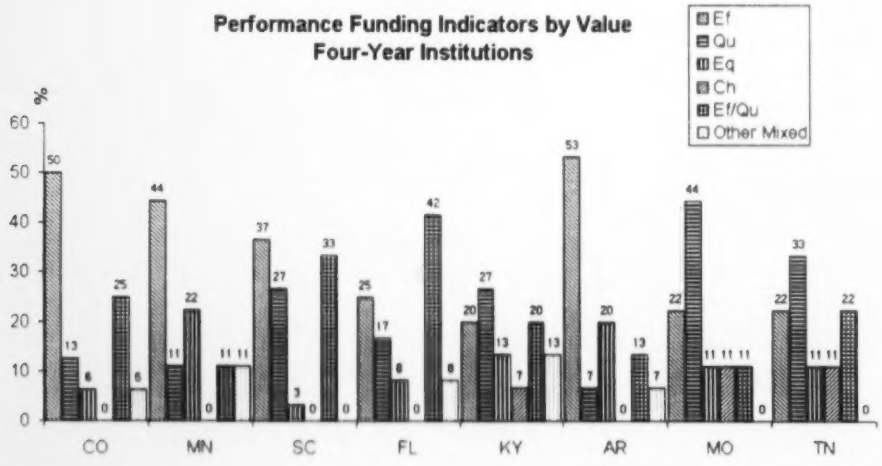


Data for the individual states tell a different tale. Once again, Florida — the only state with separate indicators for two-year colleges — shows a dramatic shift from the baccalaureate campuses to the community colleges. Though efficiency indicators rise only slightly, quality indicators fall to zero. The most startling change is the climb of indicators reflecting both efficiency and equity to 57 percent for Florida's two-year colleges, due to measures on the number of degree completers who were economically disadvantaged, needed remediation, had disabilities, and were non-native English speakers. The combination of efficiency and quality fell sharply in that state in the transition from four- to two-year campuses. Elimination of the indicators for community colleges suggesting quality means that, once again, Florida does not match the expectation of a Mandated/Not Prescribed state, which according to the prediction should strongly support efficiency but not neglect quality. Kentucky and Arkansas also fail to fit the predicted pattern of value choices for community colleges based on whether the states mandated performance funding and prescribed the indicators.

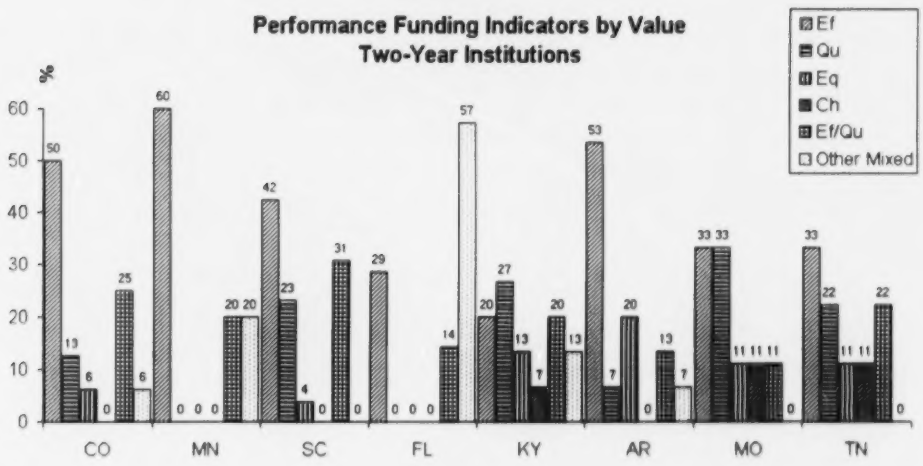
The other five states do follow fairly well the expectations, though their indicators exhibit less emphasis on quality and more stress on efficiency than those used for four-year schools. The differences, of course, arise from the states with at least some different indicators. Minnesota, a Mandated/Prescribed state, had a considerable rise in efficiency measures for community colleges and a drop in quality indicators. An interesting difference in Minnesota is the decline in the percent of equity indicators to zero. Apparently, the Governor and Legislature believed that the Minnesota State College and University System had done well on equity issues and did not need the equity indicator prescribed in legislation for the University of Minnesota. In South Carolina, another Mandated/Prescribed state, the indicators implying a value of efficiency increase somewhat for two-year institutions and those representing quality diminish by a similar amount.

The Not Mandated states of Missouri and Tennessee had more balance between quality and efficiency measures as predicted, though their indicators for two-year colleges put some additional emphasis on efficiency and less on quality. Kentucky, with the same indicators for both sectors, departs from the pattern expected for Mandated/Not Prescribed states by stressing quality somewhat more than efficiency. Florida, as mentioned above, does fit the prediction for a Mandated state by emphasizing efficiency over quality, but fails to fulfill the expectation of not neglecting quality. Arkansas, with the same indicators for both types of campuses, continues as an obvious outlier for a Not Mandated state, with overwhelming emphasis on indicators with a value of efficiency and almost ignoring quality.

**Chart 11**



## Chart 12




Despite the unique emphasis on indicators that combines efficiency and equity in Florida for community colleges, the indicator choice of only 10 percent equity for four-year and 9 percent for two-year institutions suggests its decline as a policy value. None of the indicators picked by four or more states have an equity goal for either type of institution. Only one (Faculty/Staff Diversity) appears in the 12 selected by three states for baccalaureate institutions. For two-year colleges, only two states picked Faculty/Staff Diversity, Minority Graduates, Minority Undergraduate Access, and overall Student Access. The indicators selected by a single state for community colleges have just three equity items: Gender Issues, Minority Retention Rate, and Non-traditional Education. Once again, the total picture obscures the variations in state choices. Arkansas with 20 percent of its choices on equity indicators for both sectors put considerable weight on this value. Despite the preference of this state, a significant finding is the diminished emphasis on equity, which once represented a must priority in state policy for both sectors of public higher education.

Choice has only one indicator, selected by Kentucky, Missouri, and Tennessee. These three states include a special indicator that gives institutions a wide choice in selecting a preferred measure of performance. Kentucky and Missouri specifically include an institutional choice indicator and Tennessee permits a campus to select measures of instructional improvement, based on weaknesses discovered through the performance-funding program. Performance funding presents a major problem of how to emphasize statewide objectives while recognizing campus diversity and distinctive missions. A campus choice indicator appears appropriate for community colleges which differ dramatically in the size of their enrollments, the number of programs, and the needs of their communities. It also seems proper for baccalaureate campuses, where size, diversity, and complexity are also problems in performance-funding programs. Kentucky, Missouri, and Tennessee address directly the issue of institutional diversity with a separate indicator allowing campus choice, though these and other states also emphasize institutional missions in other indicators and in their weights and standards of success.

## Models of Excellence

Performance indicators should suggest preferred models of excellence for public colleges and universities, since they signify the goals and objectives of what are perceived by policy makers as

successful baccalaureate campuses and community colleges. Three model of excellence for colleges and universities are used for this analysis.

1. Resource/Reputation Model (primarily a traditional faculty-oriented model);
2. Strategic Investment/Cost-Benefit Model (primarily a state-oriented model);
3. Client/Customer-Centered Model (primarily a student and other customer-oriented model).

One could perhaps construct a model of excellence strictly for community colleges, but such a model is not implicit in the indicators selected in these eight states. Moreover, this model would likely emphasize the differences of community colleges from baccalaureate campuses and might slight the common goals and mission of all colleges and universities.

The differences between the two sectors on the models implied by their indicators appear insignificant. What is significant is that the indicators selected for both show declining interest in the Resource/Reputation model; increasing attention to the Strategic Investment; and — most important — the strong attraction to a merged model combining the Strategic Investment with the Client Centered. When businesses, schools, citizens, and especially local communities for community colleges are added to enrolled students as clients and the state is seen as a customer as well as a supporter, the Models of Strategic Investment and Client Centered tend to merge, despite some conflicts in client interests. Community colleges have long considered their local communities as interested customers as well as financial supporters. The gap between the two models is likely to close even more when constrained resources and competitive demands for tax dollars push states, counties, and cities to limit their support for public higher education. The reality of limited resources will probably decrease the role of both the state and local government as sponsors and is likely to increase their role as customers. State and local governments will see themselves less as the primary supporter and more as a most-favored client purchasing products and services.

The Client Centered already is, and the Strategic Investment is becoming, a market model, but the Resource/Reputation paradigm is a provider-driven model, out of step with the new emphasis on customer service in business organizations and increasingly in government agencies. One would expect that community colleges would reject the Resource/Reputation Model, which stems from graduate research universities and elite liberal arts colleges, and would favor the Client Centered exemplar, because of their traditional responsiveness to local students and community needs.

The results show that both four- and two-year institutions do move away from the traditional Resource/Reputation model but not to a pure Client-Centered Model. The differences between the sectors are minimal. Comparisons of community colleges with baccalaureate campuses reveal a slight fall in an already low percentage for the Resource/Reputation coupled with a similar increase in the merged model of Strategic Investment and Client Centered. In effect, the community colleges exaggerated slightly a trend already apparent in the indicator choices of the baccalaureate campuses. Given the community colleges commitment to open admission, emphasis on teaching rather than research, and commitment to job training and placement, the surprise is that their differences with baccalaureate institutions on the models of excellence are so small.

**Chart 13**

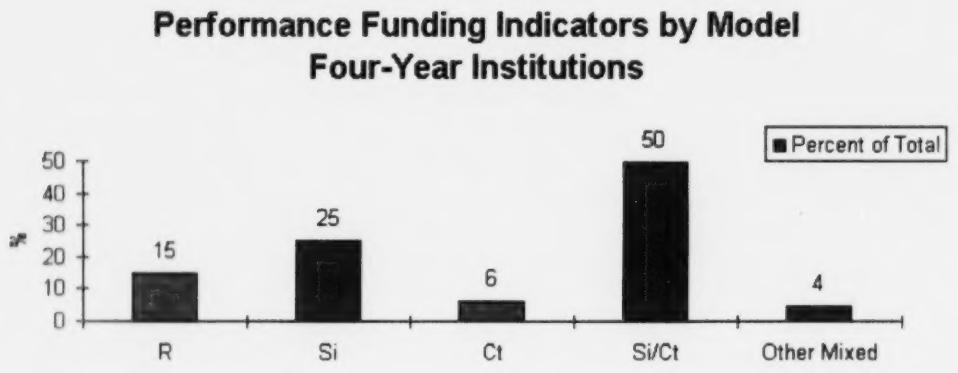
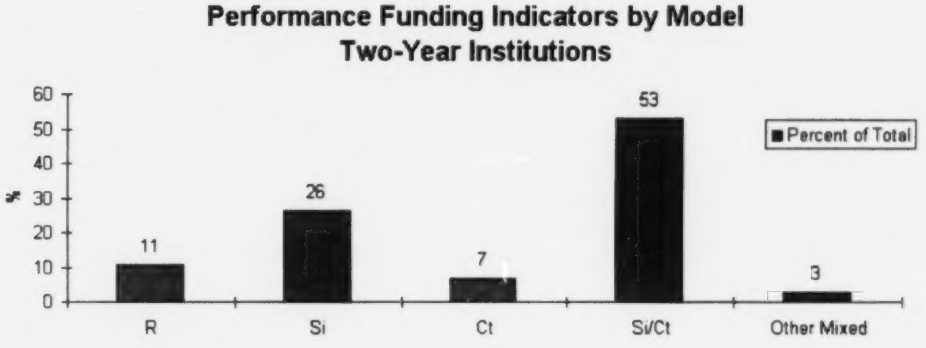



**Chart 14**




The change from four-year colleges and universities comes from Minnesota and Florida with the elimination of indicators suggesting the Resource/Reputation and with significant jumps in the percents going to the merged Model of Strategic Investment/Client Centered. Even the Non-Mandated states of Missouri and Tennessee for community colleges shift a bit from the Resource/Reputation to the combined Strategic Investment/Client-Centered Model, but they still show a much higher percent of indicator choices implying the Resource/Reputation Model than do the other states. Again, Arkansas, with the same indicators for both sectors, resembles more the Mandated/Prescribed than the Not Mandated states, with little interest in Resource/Reputation and a heavy emphasis on both Strategic Investment and its combination with Client Centered. Kentucky, using the same indicators, continues to follow the prediction for a Mandated/Not Prescribed states, with a preference for both the Strategic Investment and its combination with Client Centered without ignoring completely the Resource/Reputation Model.

**Chart 15**

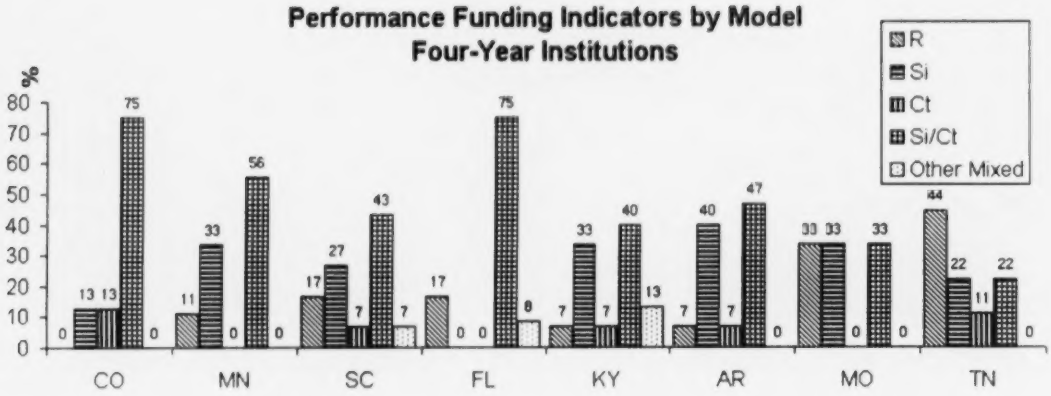
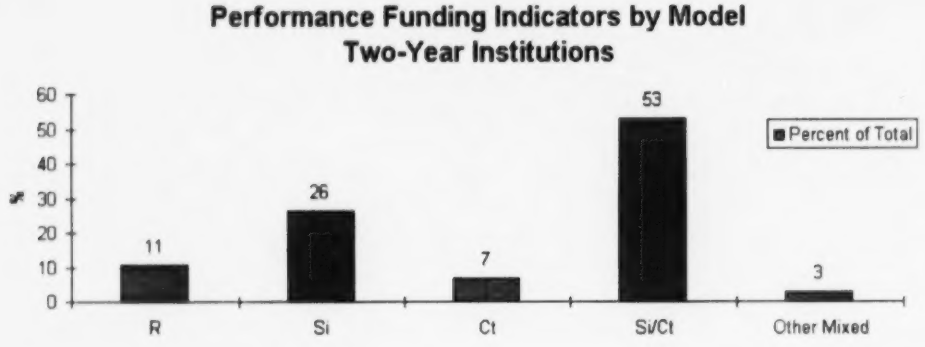



**Chart 16**




## The Same or Separate Indicators?

This study shows that the state selection of performance-funding indicators for their two- and four-year institutions does differ between the sectors, though perhaps not as much as one might expect. It also suggests that they might have differed more if fewer states had used the same indicators for both sectors; and others had carefully considered the different missions and goals of these two types of institutions. The question remains: should the sector indicators differ? And if so, to what extent? Three of the eight states in this study have the same indicators for both sectors. Four have one or more different indicators for the two types of institutions. Florida alone has separate indicators for community colleges and baccalaureate campuses.

Which of these approaches works best? Neither of the two extremes — either the same or separate indicators — seems appropriate. Using identical indicators does not recognize the important differences in missions and priorities of these two sectors. On the other hand, having separate indicators seems to suggest that community colleges and baccalaureate campuses have little in common and few connections. The first approach could divert community colleges from their critical and unique role in developing technical skills and job training to meet the changing needs of their communities. The second approach could neglect the growing importance of coordinating

courses and curricula between sectors at a time when community colleges are becoming the entry point to baccalaureate degrees for many — and in some states — most students. The need to recognize important differences and critical connections suggests a core of common indicators, combined with separate indicators to reflect the special mission of each sector. Such a combination of common and different indicators could satisfy the requirement of both unity and diversity in these two vital sectors of public higher education. If community colleges had separate indicators, they would remain separate, but unequal, in the higher education hierarchy. If they had the same indicators, their unique qualities might be submerged in the goals and aspirations of baccalaureate institutions.

Community colleges need to continue as comprehensive institutions with both job training and baccalaureate transfer functions. Leaders from both sectors should collaboratively define the critical differences and similarities between these two types of institutions and then together design a sets of common and alternate indicators based on those discussions. Their missions are interlocking. Neither sector can afford to do it alone, for neither can make it on their own.

## Conclusion

This study of the similarities and differences of performance-funding indicators for two- and four-year institutions in eight states suggests the following findings:

- The indicator selections for both sectors exhibit a surprising lack of common choices.
- The emphasis of many indicators on full-time students and degrees and certificates — probably due to data availability — fails to reflect the critical mission of two-year colleges to serve part-time students and to provide shorter-term education and training.
- The differences in indicator choices for community colleges mostly accelerate the trends apparent in the selections for baccalaureate campuses.
- Both sectors show a shift from input to output and outcome indicators and a heavy reliance on process indicators.
- Community College indicators show slight increase in external concerns, and a corresponding decrease in internal concerns from their four-year counterparts, which already exhibit a strong preference for external concerns.
- The indicators for both sectors place nearly twice as much stress on efficiency as on quality, but both also devote over 20 percent of their indicators to a combination of efficiency and quality.
- The limited choice of equity indicators for both two- and four-year institutions suggest a decline in both equity and perhaps access as policy values.
- Both sectors show declining interest in the Resource/Reputation Model of institutional excellence and growing attraction to a combined Strategic Investment/Client Centered Model.
- Whether performance-funding programs were mandated and the indicators prescribed by legislation explain fewer of the differences in state choices of indicators for two-year than they do for four-year institutions.

- Indicators on workforce development, feedback from alumni and their employers, and continuing education receive much less support than one would expect for community colleges that traditionally respond to student, employer, and community needs in their sponsor areas.

What lessons might be learned by state and campus policy makers for use when developing or revising performance-funding programs for baccalaureate campuses and community colleges?

1. That a combination of some common indicators for the two sectors to reflect their shared goals, coupled with some different indicators to encourage their separate missions, represents the most appropriate approach.
2. That leaders of both sectors should collaborate in identifying the similarities and differences between these two types of institutions and in designating the performance-funding indicators that reflect their deliberations.
3. That the indicators should reflect the critical mission of two-year colleges to serve part-time students and provide shorter-term, nondegree, education and training.
3. That performance-funding indicators should promote a new notion of educational excellence for public higher education built on the community college tradition, which insists that institutional quality should depend on service to students and society rather than on resources and reputations.
4. That this new notion of educational excellence should use the combination of the Strategic Investment/Client Centered Models, which matches the mission and tradition of community colleges.

The participation of community college leaders in the process of identifying indicators for both sectors can help to ensure that these measures support multiple models of institutional excellence that suggest the diversity of campus missions and clientele. Though some indicators for community colleges should reflect their particular priorities, a common core should recognize that what is often most valued in higher education knows no boundaries, including sector lines.

## Notes

1. This article uses material from the study of baccalaureate institutions on the designations of indicator types, the definition and description of policy issues, concerns, and models of institutional excellence.
2. This state has two types of two-year colleges: the branch campuses of the University of South Carolina and Technical Colleges. The latter have been used for this study, because they have both the job training and baccalaureate transfer missions of comprehensive community colleges.
3. Peter Ewell, "Developing Statewide Performance Indicators For Higher Education," in Sandra S. Ruppert (Ed.), *Charting Higher Education Accountability: A SourceBook On State-Level Performance Indicators* (Denver: Education Commission of the States, 1994), p.155.

4. The indicators proposed for Performance Based Program Budgeting did include an item on access.

5. Ewell, *Charting*, p. 155.

6. Richard C. Richardson, Jr.,"Effectiveness in Undergraduate Education: An Analysis of State Quality Indicators," in Ewall, *Charting*, p. 132.

## Appendix 1
## Categories of Indicators and Measures Used or Proposed in Performance/Incentive Funding Programs in Arkansas, Colorado, Florida, Kentucky, Minnesota, Missouri, South Carolina, Tennessee (two-year colleges)

| | *AR* | *CO* | *FL* | *KY* | *MN* | *MO* | *SC* | *TN* | *Predominant* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *Type* | *Value* | *Concern* | *Model* |
| 1. Retention/Graduation Rates (All Students) (Increase) | S | S | B | S | S | S | S | S | Op | Ef | Ext | Si/Ct |
| 2. Job Placement (Improve) | | S | C | | S | C | S | C | Oc | Ef | Ext | Si/Ct |
| 3. Credits on Graduation/Time To Degree (Decrease) | | S | C | | S | | S | | Op | Ef | Ext | Si |
| 4. Faculty Teaching Load (Increase) | S | S | B | | | | S | | P | Ef | Ext | Si/Ct |
| 5. Licensure Test Scores | S | S | S | | | | S | | Oc | Qu/Ef | Ext | Si/Ct |
| 6. Two-to-Four Year Transfers (High/Increase) | S | S | | | | S | S | | I | Ef | Ext | Si/Ct |
| 7. Use of Technology Telecommunication/Distance Learning (Increase) | | S | B | S | S | | | | P | Ef/Eq/Qu | Ext | Si/Ct |
| 8. Faculty/Staff Diversity (Increase) | S | | | S | B | | | | Oc | Eq | Ext | Si |
| 9. Institutional Choice | | | | S | | S | | S | P | Ch | Int | R |
| 10. New Student Preparation (Improve) | | | | | B | S | B | | I | Qu | Int | R |
| 11. Non-Instructional Staff/Cost (Decrease) | S | S | | | | | S | | P | Ef | Ext | Si |
| 12. Program Duplication (Decrease) | S | | | | B | | S | | P/Op | Ef | Ext | Si |
| 13. Satisfaction Surveys (student, alumni or employer) | S | | | | | | S | S | Oc | Qu | Ext/Int | Ct |
| 14. Sponsored Research Funds (Increase) | | | B | S | | | B | | Op | Qu/Ef | Int | Si/R |
| 15. Teacher Education (Improve) | | | | S | | S | B | | P | Qu | Ext | Si |
| 16. Test Scores, Gen Ed, Majors | S | | | | | S | | S | Oc | Qu/Ef | Ext | Si |
| 17. Workforce Training, Development (Increase/Expand) | S | S | | S | | | | | P | Ef | Ext | Si/Ct |
| 18. Assessment Student Learning | | | | S | | S | | | P | Qu | Int | Si |
| 19. Class Size | | | B | | | | S | | P | Qu/Ef | Int | Si/Ct |
| 20. Effective Management | | | | S | | | S | | P | Ef | Ext | Si |
| 21. External Program Review | S | | | | | | | S | P | Qu/Ef | Int | R |
| 22. Faculty Evaluation | | S | | | | | S | | P | Qu/Ef | Ext | Si/Ct |
| 23. Graduate Education | | | | | | B | | B | P/I | Qu | Int | R |
| 24. Institutional Cooperation (Increase) | | | | S | | | S | | P | Ef/Qu | Ext | Si |
| 25. Instructional and Staff/Cost (Increase) | | | | | S | | S | | P | Ef/Qu | Ext/Int | Si/Ct |
| 26. K-12 Linkage | | S | | S | | | | | P | Ef/Qu | Ext | Si/Ct |
| 27. Minority Graduates (Increase) | S | | | | | S | | | Op | Eq | Ext | Si/Ct |
| 28. Minority Undergraduate Access (Increase) | | | | | B | | | S | I | Eq | Ext | Si/Ct |
| 29. Program Accreditation (Increase) | | | | | | | S | S | Oc | Qu | Int | R |
| 30. Public Service (Increase) | | | B | | | | S | | Op/P | Qu/Ef | Ext | Si/Ct |
| 31. Student Access (Increase) | | S | | | | | S | | I | Eq | Ext | Si/Ct |
| 32. Achieving Planning Goals | | | | | | | S | | Op | Ef | Ext | Si |
| 33. Continuing Education (Increase) | | | | | | | S | | P | Qu | Ext/Int | Si/Ct |

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| 34. Continuing to Graduate/Professional Education (Increase) | | | | | | | S | | Oc | Qu | Int | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *AR* | *CO* | *FL* | *KY* | *MN* | *MO* | *SC* | *TN* | *Predominant* | | | |
| | | | | | | | | | *Type* | *Value* | *Concern* | *Model* |
| 35. Course Availability | | S | | | | | | | P | Qu/Ef | Ext | Si/Ct |
| 36. Faculty Availability to Students Outside Courses | | | | | | | S | | P | Qu/Ef | Ext | Ct |
| 37. Faculty Compensation | | | | | | | S | | I | Qu | Int | R |
| 38. Faculty Credentials | | | | | | | S | | I | Qu | Int | R |
| 39. Faculty Post Tenure Review | | | | | | | B | | P | Qu/Ef | Ext | Si/Ct |
| 40. Fund Raising | | | | S | | | | | Op | Qu | Int | Si/R |
| 41. Gender Issues | | | | S | | | | | P | Eq | Ext/Int | Ct |
| 42. Global Perspectives | | | | S | | | | | Oc | Qu | Ext/Int | Si/Ct |
| 43. Internships, Cooperative Education | | S | | | | | | | P | Qu | Ext/Int | Ct |
| 44. Meet Enrollment Goals | | | | | | | | S | P | Ef | Ext/Int | Si |
| 45. Minority Retention Rate (Increase) | S | | | | | | | | Op | Eq | Ext | Si/Ct |
| 46. Mission Focus | | | | | | | S | | P | Ef | Ext | Si |
| 47. Non-Traditional Education | | | | S | | | | | P | Eq | Ext | Si/Ct |
| 48. Minority Graduation Rates for Transfers and First-Time Students | | | B | | | | | | Op | Eq | Ext | Si/Ct |
| 49. Number of Degree and Certificate Completers, Requiring Remediation | | | C | | | | | | Op | Ef/Eq | Ext | Si/Ct |
| 50. Number of Degree and Certificate Completers, Economically Disadvantaged | | | C | | | | | | Op | Ef/Eq | Ext | Si/Ct |
| 51. Number of Degree and Certificate Completers, Disabled | | | C | | | | | | Op | Ef/Eq | Ext | Si/Ct |
| 52. Number of Degree and Certificate Completers, ESN or ESL | | | C | | | | | | Op | Ef/Eq | Ext | Si/Ct |
| 53. Number of Patents, Copyrights Secured by Faculty | | | B | | | | | | Op | Qu | Int | R |
| 54. Number of Scholarly Publications, Performances, and Exhibitions | | | B | | | | | | Op | Qu | Int | R |
| 55. Priority In-State Students | | | | | | | S | | I | Ef | Ext | Si/Ct |
| 56. Program Productivity (Increase) | S | | | | | | | | P | Ef | Ext | Si |
| 57. Proportion of Credit Hours Taught Per Ranked State Funded Faculty Member | | | B | | | | | | P | Qu/Ef | Ext | Si/Ct |
| 58. Retention, Developmental Students | S | | | | | | | | Op | Ef | Ext | Si |
| 59. Space Utilization for Academic Purposes | | S | | | | | | | P | Ef | Ext/Int | Si/Ct |
| 60. Student/Faculty Ratios | | | | | | | S | | I | Qu/Ef | Int | R/Ct |
| 61. Student Advising | | S | | | | | | | P | Qu | Ext | Ct |
| 62. Transfer Graduation Rates | | | B | | | | | | Op | Ef | Ext | Si/Ct |

**Legend:**
**Type of Indicators: I-input; P-process; Op-output; Oc-outcome;**
**Value of Indicators: Ef-efficiency; Qu-quality; Eq-equity; Ch-choice;**
**Concern reflected by indicators: Ext - external; Int - internal;**
**Model reflected by indicators: R - reputational; Si - strategic investment; Ct - Customer Oriented;**

**S-indicator used by both 4- and 2-year institutions.**
**B-indicator used only by 4-year institutions.**
**C-indicator used only by 2-year institutions.**

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